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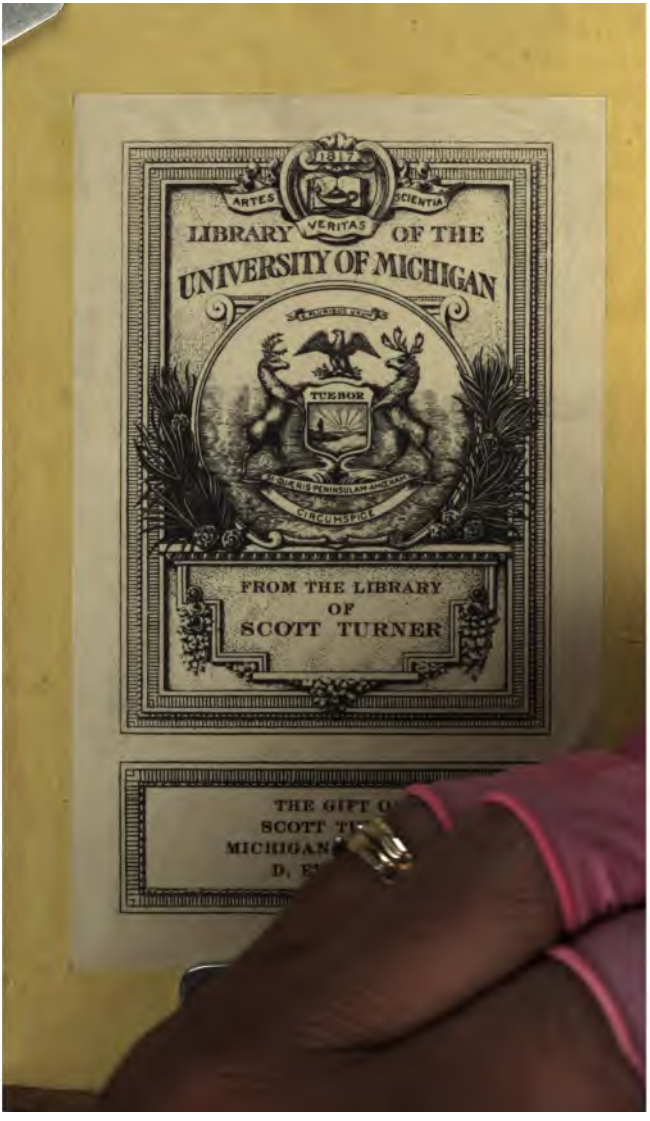
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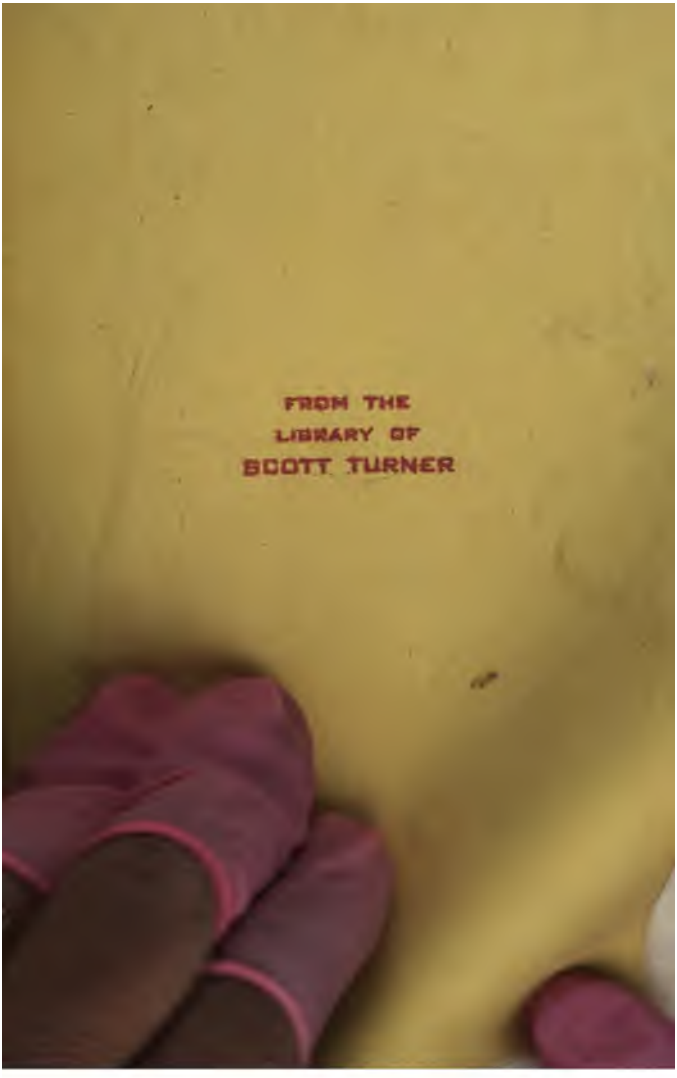
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# NARRATIVE

SCOTT TURNER

OF THE

# RECENT

# VOYAGE OF CAPTAIN ROSS

TO THE

**ARCTIC REGIONS,**

IN THE YEARS 1829-30-31-32-33,

AND A NOTICE OF

# CAPTAIN BACK'S EXPEDITION;

WITH

A PRELIMINARY SKETCH

OF

**POLAR DISCOVERIES,**

*From the Earliest Period to the Year* 1827.

Williams, Edwin

FIRST AMERICAN EDITION.

NEW-YORK:
PUBLISHED BY WILEY & LONG.

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## PREFACE

TO

## THE AMERICAN EDITION.

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In offering to the American public the following brief sketch, of the last voyage of Captain Ross to the Arctic Regions, we are sure of performing an acceptable service to that numerous class of citizens, who seek with eager curiosity for an account of the hazardous enterprise he attempted in the cause of science. The intelligence of his safe return to England, after the long and painful uncertainty that hung over his fate, while it was hailed with joy by his countrymen, was received in the United States with sympathetic feeling. The public may soon expect to be gratified with an authentic account of the voyage prepared by Captain Ross himself, and now in the course of publication in England. The forthcoming work will however probably be too voluminous for the general reader in this

country, and as the most important and interesting circumstances of the voyage are contained in the following compilation from minutes of evidence, before the Committee of the House of Commons, it may answer the purpose of those who wish only a summary statement. In the preliminary sketch we have given a brief account of the various voyages which have been made to the Arctic Seas, since the discovery of America, presenting a series of hazardous and bold enterprises unequalled in the history of maritime adventure. This historical narrative of Polar Voyages we have compiled principally from "Lardner's Cabinet Cyclopedia," and it seems peculiarly appropriate to precede the narrative of Captain Ross's late Voyage to the same regions.

*New-York, March*, 1835.

# A SKETCH

OF THE

## VOYAGES AND EXPEDITIONS

WHICH HAVE BEEN MADE TO THE

## ARCTIC SEAS AND REGIONS,

*From the earliest period to the year* 1827.

COMPILED FROM THE BEST AUTHORITIES.

A NORTH-WEST PASSAGE to India (the name given in the middle ages to all the distant countries of Asia) is an object which has attracted the attention of geographers and navigators from the discovery of the continent of America to the present period. To the strong desire which has prevailed to solve this problem, we owe the knowledge we possess of those icy regions that surround the North Pole, which has been obtained by the succession of bold adventures by European Navigators. And although the existence of such a passage seems doubtful, or, if it does exist, would prove useless for the purposes of commerce, the following short account of the various voyages and expeditions which have been undertaken, chiefly with a view to this object, it is believed will be found interesting, and useful for reference.

The discovery of a shorter passage to India was the first incitement to venture westward into the Atlantic Ocean. The trade carried on by European nations, with the East Indies at first

found its way through the Mediterranean, across the Isthmus of Suez, down the Red Sea, and by the Straits of Babelmandel to the Indian Ocean. This was a difficult and hazardous passage, interrupted as it was by a tedious land carriage over the Isthmus. The Portuguese after many dangerous and disastrous voyages succeeded in doubling the Cape of Good Hope; thus opening a passage to India, which if not shorter, was more sure of success. This important discovery roused the genius of navigation, and men began to think of shortening the passage to India by steering in a westerly direction. This idea first gave rise to the famous voyages of Columbus, and the consequent discovery of the NEW WORLD. Previously, (in the 15th century,) Columbus, in an arduous voyage to the north, proceeded as far as the 73d degree of latitude, and it is probable that he then approached the coast of Greenland. The conquests of the Spaniards and Portuguese in the western world presented such a brilliant train of exploits and discoveries, as to rouse the other nations of Europe to direct their attention towards discoveries in that quarter. The English in particular, were early distinguished in the school of intrepid and skilful mariners.

### CABOT'S DISCOVERIES.

IN the year 1497, Henry the Seventh of England despatched *John Cabot*, a Venetian mariner, (who had settled in Bristol,) to sail along the northern coast of the newly discovered continent, and thence proceed if possible to the East In-

dies. He was accompanied by his son *Sebastian*, who had the chief direction of the voyage. They relate, that after running a north-west course, they discovered an island in lat. 50 deg. north, to which they gave the name of *Newfoundland*. Steering to the north-east, and finding that the land still continued to oppose them in that direction, they abandoned the north-west passage, and proceeded along the coast of the United States in a southerly direction, as far as *Florida*, when their scanty supply of provisions obliged them to return to England.

### VOYAGES OF THE CORTEREALS.

The Portuguese however claim the honour of having discovered Newfoundland long before the time of Cabot. *John Vaz Cortereal* had explored the northern seas as early as the year 1463, and discovered the *Terra del Baccalhaos* or land of Cod-fish. Subsequently, *Gaspar*, the son of John Cortereal, steered northward from the Azores, and in lat. 60 deg. discovered *Greenland*. Elated by his success, and confident of finding a north-west passage to India, he easily obtained permission to undertake a second voyage. He sailed from Lisbon, May, 1501, with two ships, and had a prosperous passage as far as Greenland, but a violent storm separated the ships, and the one in which Cortereal sailed was never heard of. The other succeeded in reaching Portugal.

### SIR HUGH WILLOUGHBY'S VOYAGE.

During the great excitement that prevailed in Europe to find a north-west passage to India,

rumours were very generally circulated of the existence of a strait, supposed to stretch across the continent of America from Baffin's Bay to Behring's Strait. This passage was known by the name of the *Strait of Anain*, and so firmly was the world convinced of its existence that they actually delineated it upon their maps and charts. This circumstance tended to keep alive the spirit of research, and Sir *Hugh Willoughby*, in 1553, was fitted out by Edward the Sixth, of England, to seek for a north-east passage to Cathay, in China, of which Marco Polo in his voyages had given such glowing descriptions. But this navigator with all his crew perished miserably by cold and famine on the eastern coast of Lapland.

### FROBISHER'S EXPEDITIONS.

In 1576, *Martin Frobisher*, an Englishman, under the patronage of Dudley, Earl of Warwick, equipped two small ships, each of about thirty tons burden, with which he set sail from England, and arriving on the American coast, discovered in lat. 63 deg. north a strait, up which he sailed to the distance of 60 leagues. By various disasters, he lost several of his men, and his ships, having suffered by stress of weather, he returned home, convinced that he had discovered the long-sought passage to the Pacific Ocean. The Esquimaux in their boats, were at first mistaken by Frobisher and his crew, for porpoises or some kind of strange fish, and one of them was taken to England. One of the seamen happened to bring home a stone as a

memorial of his voyage to those distant countries, which on being assayed by the gold-finers of London was reported to contain a considerable quantity of gold. Thus the hope of finding again gold, became the incentive to distant voyages and geographical discoveries. Queen Elizabeth, now openly favoured such an enterprise, and, in 1577, Frobisher departed on his second voyage with three ships, one of which was equipped by the Queen. He steered for the strait where his preceding voyage had terminated (since called *Frobisher's Straits*,) and sought the spot where the supposed gold had been found, but could not discover a vestige of it on the whole island. On the neighbouring islands, however, the ore was found in large quantities. As gold, and not discovery, was the object of this voyage, nearly 200 tons of the glittering mineral, which they believed to be gold ore, were taken on board. When the lading was completed, they set sail homewards, and though the ships were dispersed by violent storms, they all arrived safely in different ports in England. Flattered by the hopes entertained of the discovery by Frobisher of valuable gold regions, and a north-west passage to the Pacific Ocean, the Queen resolved to establish a colony in the newly discovered country, to which she gave the name of *Meta Incognita*. A fleet of 15 ships was fitted out and 100 persons appointed to form the settlement, keeping with them three of the ships; the other twelve were to be employed in bringing back cargoes of gold ore. Frobisher was appointed Admiral of the expe-

dition, and on taking leave received from the Queen a gold chain as a mark of her approbation of his past conduct. The fleet sailed in May, 1578, and in three weeks discovered *Friezeland*, of which possession was taken, and then steered a direct course to Frobisher's Straits. Distress and vexations of various kinds thwarted the attempt to fix a colony. Violent storms dispersed the fleet, and at length after enduring extreme hardships, it was resolved to return homewards, and the ships arrived at various ports in England before the commencement of October.

### SIR HUMPHREY GILBERT'S EXPEDITION.

In 1578, *Sir Humphrey Gilbert*, a gentleman of brilliant talents and of romantic temper, obtained a patent from Queen Elizabeth which invested him with power to discover and take possession of lands yet undiscovered by any Christian nation; and embarking from England with a fleet of five ships, he set sail to the north-west, and reached the Island of St. John's in the gulf of St. Lawrence, where, after taking possession in the Queen's name, he left a part of his crew to settle the country, whose attention was chiefly to be turned to the discovery of precious metals, and then attempted to return to England; but when near the Azores, the ship, in which was the gallant Sir Humphrey, encountered a heavy sea, and was swallowed up by the waves.

### DAVIS' EXPEDITION.

The failure attending the recent expeditions

induced voyagers to abandon the search for gold, and it was now resolved, to despatch an expedition of which discovery should be the sole object. The merchants of London being satisfied of the existence of a "north-west passage," fitted out two small barks and intrusted the command to *John Davis* an expert and experienced seaman. He sailed from Dartmouth in June, 1585, and by the middle of July entered the strait since called by his name, and coasting along the western side of Greenland, the country presented so bleak and gloomy an appearance, that he named it the *Land of Desolation.* Steering to the north-west, he saw land in lat. 64 deg. 15 min. which proved to be a group of islands, among which were numerous good harbours. To that near which he cast anchor, he gave the name of *Gilbert's Sound,* in honour of Mr. Adrian Gilbert, a brother of the unfortunate Sir Humphrey Gilbert. He entered the passage now known as *Cumberland's Strait,* up which he sailed 60 leagues. He saw several whales, and encountered a tide flowing in an opposite direction from that in which he entered. These circumstances confirmed him in the belief that he had found the passage which had so long been vainly sought, and with these flattering hopes he returned to England. The success of Davis procured him a second expedition, and sailing up Davis' Strait till he could proceed no farther, he was satisfied that this was not the desired passage. On a third voyage however, he discovered several other straits, one of which he maintained had a communication with the Pacific Ocean.

### VOYAGES OF THE DUTCH.

About the close of the 16th century two voyages were undertaken by the Dutch, commanded by *Cornelison* and *Barentz*, to find a north-east passage to Cathay, both of which proved unsuccessful. They arrived at the coast of Nova Zembla, and proceeded north as far as 77 deg. 25 min. where they encountered large fields of ice, which obliged them to return.

### VOYAGES OF WEYMOUTH, KNIGHT, AND HALL.

Unsuccessful attempts at a north-west passage were made by Weymouth in 1602, and Knight and Hall in 1606.

### HUDSON'S EXPEDITIONS.

The numerous attempts to discover a north-west or north-east passage to China had hitherto proved fruitless, from difficulties which it was believed experience might learn to conquer. It was now resolved by the merchants of London to explore a new route, and seek a passage across the North Pole. For this bold enterprise they selected *Henry Hudson*, a man who had by his boldness in encountering hardships, distinguished himself as a skilful and intrepid navigator. He is said to have been the first Englishman who made observations on the *inclination* of the *magnetic needle*. Hudson sailed from Gravesend on the 1st of May, 1607, and descried land in 70 deg. north latitude, which proved to be the eastern coast of Greenland. Advancing three degrees farther, he descried a lofty range

of mountains, free from snow. The severity of the cold appeared to diminish beyond a certain degree of latitude towards the North Pole; the air was more temperate, and the rain fell in large drops. From Greenland he directed his course to Newland or Spitzbergen, which he made in lat. 78 deg. In lat. 8 deg. some of his crew went on shore and discovered morses' teeth, whale-bone, deers' horns, and the tracks of other animals. The approach of winter and want of provisions obliged him to desist from prosecuting his voyage any farther, and he consequently directed his course homeward, where he arrived safely in September, the same year. In 1608, Hudson was provided with a ship for a second voyage, and as he had found the ice to hinder him from passing to the northward of Spitzbergen, he was directed now to repeat the attempt to find a north-east passage to China. He was prevented in this, by the quantities of ice which encumber these seas, he therefore abandoned that project, and steered for England, where he arrived on the 26th of August.

In a third expedition fitted out the next year, being this time employed by the Dutch, Hudson sailed for North America, and discovered the river which still bears his name. A mystery hangs over the exact object of this voyage. The vessel in which he sailed was called the *Half-Moon*. In 1610 a fourth expedition was undertaken by Hudson, who steered for Frobisher's Straits, and had long to contend with contrary winds, but persisting in a westerly course he found himself in a strait, which he supposed to be

the one sought for, but which is still farther to the south than Frobisher's, and has since been called *Hudson's Strait.* He succeeded in reaching the north-west coast of Labrador, naming it *Cape Wolstonholm*, and a cluster of Islands to the north-west he gave the name of *Digges.* Here the land seemed to turn to the south, and a great sea opened to view, which has since received the name of *Hudson's Bay.* Having proceeded a little to the south, he entered a small inlet giving to it the name of *Michaelmas Bay*, in allusion to the day on which it was first seen. As the season was far advanced, he found it necessary to prepare for a long and tedious winter. Their scanty supply of provisions compelled their commander to put the crew upon allowance, which caused such discontent among them that a *mutiny* was the awful consequence. *Hudson was bound hand and foot and lowered into a boat where he was left to perish by cold and hunger.* Such was the unfortunate end of this great and good man, whose deeds record more indelibly than any monument, the praise so justly due to him.

### BUTTON'S EXPEDITION.

THE discovery of the great sea to the west of Cape Wolstonholm was a beacon lighted up for a guidance to new discovery. The merchants of London caused an expedition to be prepared in 1612, and intrusted it to *Captain* (afterwards Sir Thomas) *Button.* He was fitted out with two vessels, the *Resolution* and *Discovery*, and accompanied by Pricket and Bylot, two experienced seamen, who had accompanied Hudson

in his last voyage; and although suspicions of guilt hung over their character, they were supposed to be acquainted with the navigation of Arctic Seas, and were on that account appointed to the service. On entering Hudson's Straits, they proceeded directly westward until they reached an island since called *Southampton Island.* From this they continued to sail westward until they fell in with the main land of North America in lat. 60 deg. 40 min., giving it the name of *Hopes Checked.* They now stood for the south and in lat. 57 deg. 10 min. entered the mouth of a river since known as *Nelson's River.* In this place preparations were made to spend the winter. Some of the crew died from the intensity of the cold. In April, when the ice had disappeared, Button launched his vessels, and sailing northward along the coast of Hudson's Bay as far as lat. 65 deg., he fell in with a cluster of islands, to which he gave the name of *Mansel's Islands,* (now known as *Mansfields Islands,*) after this he directed his course homeward, and reached England in the autumn of 1613, after a voyage of sixteen months.

### BAFFIN'S EXPEDITION.

NOTWITHSTANDING the numerous disappointments which occurred in attempts to discover a north-west passage, the visible progress of geographical knowledge was inducement sufficient to keep alive the spirit of adventure. In 1615 the *Discovery* was fitted out on a fourth expedition to the "North-West." Robert Bylot, who had before frequented those seas, was appointed

master, and *William Baffin*, who wrote an account of his voyage, his mate. Baffin was an experienced seaman, and possessed great skill in navigation. During this voyage he took occasion to exercise his scientific acquirements. He is said to have been the first navigator who laid down a method for determining the longitude at sea, by observations on the heavenly bodies. They proceeded as far as Resolution Island, and observing a tide to flow from the north, were at one time confident of success in discovering a north-west passage. As they advanced within the inlet which flattered their hopes, the shoaliness of the water soon undeceived them, and after encountering great danger from the quantities of broken ice, they resolved on returning to England. The merits of Baffin were too well known to allow him to remain long unemployed. The same company of merchants that had equipped the preceding expedition fitted out the Discovery on a fifth voyage in search of a north-west passage. Robert Bylot was again appointed master, and William Baffin pilot. The Discovery sailed from Gravesend in March, 1616, and running northward up Davis' Straits, anchored in lat. 70 deg. 20 min. The rise of the tide here was only eight or nine feet, a circumstance which Baffin looked on as a presage of disappointment, yet as the ice was now disappearing he persisted in a northerly course, but the weather was so intensely cold, though in the middle of summer, that the sails and ropes were so frozen as to be rendered almost unmanageable. In lat. 75 deg. 40 min. the ice disappeared, and the prospect of

an open sea, again revived hopes of a passage. Stormy weather drove them into a sound, which from the number of whales observed in it, they called *Whale Sound.* To another spacious inlet running to the north of 78 deg. they gave the name of *Sir Thomas Smith's Sound,* and an Island near it they called *Hakluyt's Island.* "This Sound," says Baffin, "is admirable in one respect, because in it is the greatest variation of the compass of any part in the known world, for by divers good observations I found it to be above five points, or 56 deg. varied to the westward." They now stood to the south-west, until they made land near the entrance of a sound, which they named *Alderman Jones' Sound.* Still proceeding westward, they found again in 74 deg. 40 min. another great opening, calling it *Sir James Lancaster's Sound.* The hope of a passage was now greatly diminished, the shore was unapproachable from the ice, and sailing along this barrier they arrived at Cumberland's Straits, where there remained no longer any hope of a western passage, and they therefore abandoned any farther prosecution of the voyage. The spacious inlet which they had explored has since received the name of *Baffin's Bay.* They set sail for England, and arrived on the 13th of August at Portsmouth.

From the years 1603 to 1613 several expeditions were equipped, to endeavour to seek a north-east passage, by the Dutch and English, under different commanders, one of which to Spitzbergen was intrusted to William Baffin. It is needless to add that they all proved fruitless, since a passage in that direction has always been found

to be attended with the same difficulties as that by the north-west.

### MONK'S EXPEDITION.

In the year 1619 two ships chiefly manned by English seamen, and commanded by *Jan Monk*, were sent out on a voyage of discovery, with the intention of pursuing the tracks of Hudson and Baffin. The ice prevented Monk from running along the western coast of Greenland, he consequently steered for Hudson's Strait, and finding the coast of America in lat. 63 deg. 20 min., he took shelter in a harbour, which he called *Monks' Winter Harbour* (probably the Chesterfield inlet of our maps.) The surrounding country they named *New-Denmark*. The severity of the winter and the use of salt provisions produced the scurvy among the crews, so that out of sixty-four men only three remained alive in the spring, (among whom was Monk himself,) and they were so emaciated by disease that it was with the greatest difficulty they succeeded in reaching Europe. They put to sea, and after a stormy passage arrived safe at a port on the coast of Norway.

### FOX'S EXPEDITION.

The spirit of discovery seems to have slept for several years after the voyages of Baffin, probably from the severities of the climate, and the conclusions of navigators that there was no hope of a "north-west passage." However, in 1631, *Captain Luke Fox* obtained from the King of England the loan of one of his ships, for the purpose of making one more

effort to reach Cathay and the other countries on the east of Asia, which he confidently believed he should arrive at, by pursuing a north-westerly course. On taking leave, he obtained from the King a map of all the countries his predecessors had visited, with a letter to the Emperor of Japan. On entering Hudson's Strait, he encountered large quantities of ice, and "at Salisbury Island," he observes, "the needle becomes sluggish and insensible," a phenomenon which he ascribes to the "sharpness of the air interposed between his needle and the attractive point."

Sailing down Hudson's Bay, he arrived at Nelson's River, where he found a cross, that had been erected there by Sir Thomas Button. Disappointed of finding a passage in that quarter, he returned to England on the last day of October, without having lost any of his crew, which, in those perilous undertakings, may well be considered a remarkable instance. Fox was evidently dissatisfied with the issue of his voyage, still persisting that a passage might be obtained further to the north, as he observed a tide flowing in that direction.

### JAMES' VOYAGE.

In 1635, the merchants of Bristol despatched *Captain Thomas James* with similar instructions as those of Fox, but he proved himself less qualified for the undertaking, and surely was less fortunate. His ships suffered much in Hudson's Bay from boisterous winds, and the vast masses of ice that encumber this bay. He

found himself obliged to winter at Charlton Island in lat. 52 deg., and after an unsuccessful voyage, in which he experienced various disasters, he returned to England.

### GROSSELIEZ AND GILLAM'S EXPEDITION.

The voyages to Hudson's Bay, although they did not disprove the existence of a "north-west passage," were not calculated to raise sanguine expectations in that quarter. The English had almost forgotten Hudson's Bay, when an accident diverted their attention again to that region. The French settlers in Canada, in their travels through it, in search of peltry, at length arrived at the shores of Hudson's Bay. One of these adventurers, named *Grosseliez*, having visited that coast, conceived that it possessed great advantages for the fur trade. He proceeded to France and laid his representations before government. But failing to excite the attention of the French ministers, he was listened to with interest by the English ambassador at Paris, who gave him a letter to Prince Rupert, with which he went to England. The King was so much pleased with the project, that he immediately engaged Grosseliez to go out in one of his ships, not merely to make a settlement in Hudson's Bay, but also to seek again for the long desired route to India. *Captain Gillam* was appointed to carry out Grosseliez to Hudson's Bay, and thence to proceed on his western discoveries. Gillam wintered at Rupert's River, considerably to the north of Charlton Island, where he laid the foundation of

the first English settlement, by building a fort, to which he gave the name of *Fort Charles*. His majesty, to promote their endeavours, "*conferred on them exclusively all the lands and territories in Hudson's Bay, together with all the trade thereof, and all others which they should acquire.*" This extraordinary charter, with its exclusive and sweeping privileges, granted to the Hudson's Bay Company in 1669, continues without abridgment to the present day.

### WOOD'S EXPEDITION.

In the mean time, however, the hope of a north-east passage to China, was revived by the writings of Joseph Moxen, a Fellow of the Royal Society. *Captain John Wood*, an experienced seaman, presented a memorial to the King, in which he strongly supported the opinion that there existed a north-east passage to Cathay.

His arguments met with attention, and in 1675, he obtained two vessels, the *Speedwell* and the *Prosperous*, for the prosecution of the voyage. They were victualled for sixteen months, and stored with such merchandise as was thought most likely to turn to account on the coasts of Tartary and Japan. This unfortunate crew were wrecked upon the coasts of Nova Zembla, and were miraculously rescued from a watery grave, by an interposition of Providence, and arrived safely home to England.

### KNIGHT'S EXPEDITION.

*Mr. Knight*, governor of the factory established by the Hudson's Bay Company on

Nelson's River, learned from the native Indians, that at some distance to the northward, and on the banks of a navigable river or inlet, there was a rich mine of copper. He immediately applied to the Company, for ships to discover this rich mine. Two vessels were at length in preparation for the voyage, the sole direction of which was intrusted to Knight, who sailed in 1719, "by God's permission, to find out the *Strait of Anain*, in order to discover gold and other valuable commodities, to the northward." These ships never returned. Many years had elapsed before any thing was heard of the unhappy crews. In 1769, Mr. Hearne collected from the Esquimaux Indians, an account of their having perished miserably by cold, famine, and disease, on Marble Island, in Hudson's Bay, in the winter of 1720. A vessel was despatched, in 1722, from Churchill River, commanded by *Captain Scroggs*, in search of Knight and his crews; but, without alluding to the object of his voyage, he brought back confirmation of the existence of a copper mine. He had seen two Indians from the north, who told him of a rich mine of copper somewhere in that country, upon the shore, near the surface of the earth. They could direct the vessel so near to the mine, as to lay her side by it, and she would soon be laden with the precious ore. They had brought some pieces of copper to Churchill, that left no doubt of its reality.

### BEHRING'S VOYAGES.

In 1728, the Russian Government sent out an

expedition, commanded by *Captain Vetus Behring*, a Dane by birth, and *Alexio Thoirikoff*, a Russian officer. They sailed from Kamschatka on the 14th of July, and, steering to the eastward, discovered land in lat. 64 deg. 30 min. To a small island to the northward, they gave the name of *St. Lawrence*.

Behring did not proceed beyond lat. 67 deg. 18 min., because as no land was discernible to the north or east, he conceived that he had ascertained the separation of Asia from America, which was the sole object of his mission. Posterity has since equitably conferred on this passage the name of *Behring's Straits*. It is remarkable that Behring did not once during this voyage discover the continent of America, nor does he seem to have shaped his course of discovery to the eastward. Yet the existence of land in that direction was not an obscure tradition; it was even marked upon the maps and charts, drawn according to the best authorities that could be procured at that time. Subsequently, several voyages made by Russians, proved the existence of a vast tract of land to the east, for although they had not actually reached it, they had been visited on an island near the coast, by an Indian, who made them understand that he came from a large country to the east, where there were many animals and forests. The voyage of Krupishef completed the discovery of Behring's Strait, and proved the proximity of the Asiatic and American continents. This encouraged the Russian government to continue their researches. Behring, and the officers who

had served under him in his northern voyage, received marks of distinction, and a variety of plans were formed, for expeditions and discoveries by sea. One object proposed, was to ascertain, if possible, an entire navigation from Archangel to Kamschatka; another, of which Behring himself was to undertake the execution, was to ascertain the exact distance between Kamschatka and the coast of America in the same parallel. The first of these objects was never attained. Many expeditions were fitted out to examine the northern coast of Siberia, but they all proved unfortunate. The navigation from the Lena to the Yenisei has never been attained; many brave men have perished in the attempt to accomplish it, but the Taimura promontory which stretches to the 78th degree of latitude, is always environed by immense quantities of ice, proving an insurmountable obstacle to navigation. In 1741, Behring and Thsirikof set sail on another voyage, with the intention, when they reached lat. 50 deg. north, to turn their course directly to the east, till they reached the American continent. In latitude 58 deg. 28 min. they descried the continent. The appearance of the land was grand and gloomy. Mountains covered with snow extended far inland; one summit rose to a towering height above the rest, which they named *Mount St. Elias*. The two nearest headlands were called *Cape St. Elias*, and *Hermogenes*. Behring anchored at an island near the continent, which they found peopled with a race differing from any they had before seen. On leaving this

island, and directing his course northerly, in lat. 55 deg. land was seen, and as the scurvy was making dreadful ravages among the crew, and the ship in a shattered condition, he came to the determination to winter there, in order to repair the vessel, and prepare lodgings for the sick, which was done by digging pits in some sand-hills near a brook which ran from a mountain into the sea, and the sails were used for their present covering. The shores of the island were found to abound in sea-otters, whose skins now constitute the chief article of trade between the Russians and Chinese. Thirty of the crew, among whom was the brave Behring himself, died on the island. The survivors repaired the wreck, and reached Kamschatka the following summer, after bestowing *Behring's* name to the island on which he died.

### MIDDLETON'S VOYAGES.

In 1741, Mr. Dobbs prevailed on the Admiralty to equip another expedition for the purpose of discovery in the North Polar Seas, and to seek a passage westward to India. This charge was given to *Captain Middleton*, who succeeded in reaching Repulse Bay, but returned to England without having effected the object of his voyage, and satisfied that there existed no such passage in that direction.

### HEARNE'S EXPEDITIONS.

THE immense extent of country stretching northward from Lake Superior, is yet but imperfectly known. Its leading features, how-

ever, its chains of lakes and its navigable rivers were very soon discovered by the British Fur Traders. As early as 1715 the Hudson's Bay Company had received from the Indians tolerably distinct accounts of a river flowing into the North Sea, whose banks were exceedingly rich in mines of copper. In 1769 *Mr. Hearne* set out from Fort Prince of Wales, on Hudson's Bay, for the purpose of exploring this river, but when he had proceeded about 200 miles his Indian guide forsook him, which obliged him to return.

He, however, was fitted out on a similar expedition in February, 1770, taking with him five Indians, but no Europeans, who he found were viewed with contempt by the natives, from their inability to bear hardships. When he had advanced 500 miles into the interior he found it necessary to wait till the severity of the season was relaxed. During the winter their sufferings from cold, hunger, and famine were almost indescribable. Towards the end of April they again set forward, and in August, when in lat. 63 deg. 10 min. north and 10 deg. 40 min. west longitude from Churchill river, he was preparing to spend the winter among a friendly tribe of Indians, when a gust of wind blew down his quadrant, which was broken to pieces, and he was obliged to return.

Undismayed by all these hardships and disappointments, Hearne a third time set out on the 7th of December, the same year, in search of the Coppermine River, in company with an intelligent Indian named *Mentannabbi*. He followed, this

time, a more westerly course, and when in lat. 60 deg. north and above 600 miles from the Fort, they built canoes, and proceeded by various lakes and streams in a more northerly course. On the 13th July, 1771, they reached the Copper-mine River. On the 17th Hearne commenced his survey of the mouth of the river. From observations it appears that the ebb and flow of the tide was about 12 or 14 feet, and from the number of seals which he saw on the ice, and the quantities of whale-bones found in the tents of the Esquimaux, that the expanse before him was the sea. It appeared to be full of islands and shoals as far as he could discern with a good telescope. On the last day of June he arrived at Fort Prince of Wales, after an absence of five months.

### JOSEPH FROBISHER'S EXPEDITIONS.

In 1775, *Mr. Joseph Frobisher*, a gentleman engaged in the fur trade, undertook to penetrate into the country yet unexplored at the westward, where, after experiencing all the hardships which such undertakings are liable to, he returned without having accomplished any thing farther than to obtain a valuable collection of furs. In the following year, in a second expedition, he succeeded in reaching Lake de la St. Croix.

### MR. POND'S EXPEDITION.

In 1778 *Mr. Pond* followed the track of Mr. Frobisher, and succeeded in reaching Athabasca Lake, thus discovering a river which forms a

continuous navigation from the Canadian lakes to the sea.

### COOK'S VOYAGE.

The object of the celebrated *Cook's* last voyage was to explore the north-west coast of America, and ascertain, if possible, whether or not there existed a communication between the Atlantic and Pacific Oceans, by the northern parts of America. On the 12th of July, 1776, Cook sailed from Plymouth Sound, and taking a southerly course to the Cape of Good Hope, entered the Indian Ocean, through which he passed to the Pacific. After visiting several islands in his way, he landed, March, 1778, on the coast of America, in lat. 44 deg. 33 min. To this part of the coast he gave the name of *King George's Sound*, but the native name of *Nootka* has since prevailed. To the north of Nootka Sound, in lat. 59 deg., he entered another wide inlet, on which he bestowed the name of *Prince William's Sound*. Cook was here surprised to find the natives, in dress, language, and physical peculiarities, so much resemble the Esquimaux of Hudson's Bay. Proceeding to the north-west, a wide inlet was discovered, which some conjectured might be a strait communicating with the Northern Ocean. When he had explored this inlet about 70 leagues, it appeared to terminate in a small river, now known as *Cook's River*, or *Inlet*. The ships now stood for the west, doubled the great Promontory of Alaska, and on the 9th of August, reached the most westerly point of the American continent, distant only

thirteen leagues from the shores of Asia. On this headland Cook bestowed the name of *Cape Prince of Wales*. Crossing the strait to the opposite shore, he landed at Tshuktzki, and thus determined the exact width of the pass that separates Asia from America. Although Behring had sailed through this strait, he had not descried the shores of America, and consequently remained ignorant of the vast importance of his discoveries. Impassable masses of ice prevented his advancing further north than 70 deg. 44 min., he consequently abandoned the idea of obtaining a passage in that direction, and resolved on completing his survey of islands in the Pacific. This celebrated navigator had, in 1755, enlisted in the English navy, and distinguished himself in the Colonial war, in the campaign of 1759, when the English, under the gallant Wolf, succeeded in the conquest of Quebec. He was afterwards, in 1764, appointed to a marine survey of the coasts of Newfoundland and Labrador, a commission executed with much honour to himself, and satisfaction to his patrons; and *an observation on an eclipse of the sun in Newfoundland*, procured him the character of an able mathematician.

### MACKENZIE'S EXPEDITION.

To explore this river to which he has given his name, *Mr. Alexander Mackenzie* set forward on the 3d of June, 1789. He commenced his journey from Fort Chippewayan on the south side of the Lake of the Hills, attended by a party of Indians and Canadians. In descending the river,

when in lat. 67 deg. 45 min., he learned from the Indians that the distance overland to the sea on the east side was not great; and that to the westward it was still shorter. On the 12th of July they entered a lake as it appeared, though no land was seen ahead, but the water was shallow, and covered with ice. A rise was observed in the water, which as the wind was moderate was believed by all to proceed from the tide. He ascertained this rise to be eighteen inches, which with the number of whales seen sporting among the ice, induced our adventurers to believe they had actually reached the sea. He determined the latitude of an island on which they encamped to be 69 deg. 14 min., and which he called *Whale Island*. The expedition returned without any accident, to Fort Chippewayan on the 12th of September, 1789. In 1792 Mackenzie set forth a second time to prosecute discoveries to the westward. He ascended the Peace River, which flows from the Rocky Mountains; and in the spring of 1793, having made his way with much difficulty across this rugged chain, he embarked on a river turning to the south-west. After encountering numerous difficulties, he succeeded in reaching its mouth, which meets the sea immediately below Prince of Wales Islands. On the face of a rock he inscribed in large characters, "Alexander Mackenzie, from Canada by land, 22d July, 1793." Our adventurous travellers returned by the same route to Fort Chippewayan, bringing the assurance that he had reached the Pacific Ocean.

## VANCOUVER'S VOYAGE.

In 1791, *Captain Vancouver*, who had been appointed by the British government second in command in a projected voyage to the Antarctic seas, was ordered to proceed to Nootka Sound, and, having received from the Spanish government the restitution of that territory, to survey the whole north-west coast of America, from lat. 30 deg. to Cook's river, in 61 deg. north. He sailed in the *Discovery*, accompanied by Captain Broughton, in the *Chatham*, a small vessel of 135 tons burthen.

Vancouver was directed by his instructions to fix his attention chiefly on two objects. First, on the water communications that might facilitate the commerce between the north-west and north-east coasts of America; and, secondly, he was to ascertain the number of settlements made by Europeans on the former of these coasts, and the date of their establishment. On his voyage out, after visiting New-Holland New-Zealand, and other islands in the South seas, Vancouver arrived on the coast of New-Albion, in April, 1792. On approaching Nootka Sound, he fell in with a ship, commanded by Captain Grey, the same person who was said to have passed through the Straits of Fuca to an extensive sea, in 1789; but the American captain disavowed the reports of his navigation, which had reached Europe. He penetrated, he said, only fifty miles to the east-south-east, where the Strait was still five miles wide, and the natives told him that it afterwards turned to

the northward. Vancouver soon entered the inlet, and anchored on the first night further within it than Captain Grey or any other voyager had as yet penetrated. In his voyage thus far, he had examined 215 leagues of coast, so closely, that he had seen throughout the surf breaking over the shore. On ascending an island in the middle of the inlet, he was enchanted with the prospect that met his eye. In every direction noble trees were distributed, as if in a park, and rose trees in full bloom predominated among the brushwood. The country around appeared fertile, opening in some places into large meadows, while in others, especially in the main land, it was a wilderness of lofty trees, among which the oak was the most conspicuous. The island which forms the western boundary of the inlet, and on which Nootka is situated, is named *Vancouver's* or *Quadra's Island*. The whole Archipelago, however, was called by Vancouver *New-Georgia*, and to the wide inlet he gave the name of the *Gulf of Georgia*. After various other discoveries, and completing the survey of the north-west coast of America, Vancouver arrived in England with the ships and crews under his command, in October, 1795, having been four years absent in this laborious service. The unceasing exertions which Vancouver himself made to complete the gigantic task of surveying 9000 miles of unknown and intricate coasts, a labour performed chiefly in open boats, made an inroad on his constitution from which he never recovered, and declining gradually, he died in

May, 1798, before the last volume of his narrative was completed for the press.

### KOTZEBUE'S DISCOVERIES.

In 1815, a Russian nobleman of large fortune, Count Romanzoff, fitted out the *Rurick*, a small vessel of 180 tons, for a voyage of discovery, with a crew of twenty men, besides the officers and naturalists. He intrusted her to the command of *Lieutenant Kotzebue*, the son of the celebrated German writer of that name. Kotzebue sailed from Plymouth in England, in October, 1815, and in March following, touched at Easter Island. In August, 1816, he discovered on the American shore, to the north of Behring's Straits, a wide opening commencing in lat. 66 deg. 42 min., long. 164 deg. 14 min. He entered this inlet, and in the course of a fortnight, made a rapid survey of the coast. He suspected the existence of a passage out of it on the south-east, communicating perhaps with Norton Sound. Another channel seemed to conduct to the west. Leaving this inlet, Kotzebue crossed over to visit the coast of Asia, and thus lost an opportunity of making some important discoveries on the northern coast of America. The sea, as far as he could descry, was quite free from ice, and a steady current set to the eastward. He wintered in the Archipelago of the Pacific, that includes Nautilus, Chatham, and Calvert Islands. In the following year, he again sailed to the north, to resume his former track, but was met by severe gales, in one of which he received an injury which affected his health, and he there-

fore returned to Europe without making any further attempt to penetrate the polar sea. As no harbour was previously known on the shores of Behring's Straits, the discovery of *Kotzebue's Inlet*, in which good shelter may be found, was of great importance, particularly to vessels engaged in the whale fishery.

### FIRST VOYAGE OF CAPTAIN ROSS.

THE discovery of a north-west passage had always been a favourite object of the British nation. When the late war was at an end it was determined to send an expedition to explore Baffin's Bay, in hopes that an examination of the shores of that great sea, might detect the long-wished-for north-west passage. For this purpose the *Isabella* and *Alexander* were fitted out, and placed under the command of *Captain Ross*, an officer well experienced in the navigation of those northern seas. The Alexander was commanded by Lieutenant Parry, a young officer, whose name has since become honourably associated with north-western discoveries. The ships put to sea on the 18th of April, 1818, and on their arrival on the western coast of Greenland they found great quantities of ice, and the Governor of one of the Danish settlements informed them that the ice was yearly growing more abundant. In lat. 75 deg. 54 min. when the ships had passed the inhabited parts of Greenland, a party of Esquimaux were seen approaching the ships over the ice. On being questioned about their country they appeared not to know anything of the European settle-

ments in that region, though separated from the Greenlanders by only two degrees. Indeed they appeared to think themselves the only people in the world. They viewed the ships and their crews with the greatest astonishment, believing them to have come from the sun or the moon. To this tribe Captain Ross gave the name of the Arctic Highlanders. A little farther on, our voyagers saw cliffs covered with snow of a deep red colour; when thawed it had the appearance of muddy port wine. Red snow had frequently been seen before and observed by skilful naturalists in the Alps and Pyrenees; how it attained the red colour had been long a subject of doubt among naturalists, but it seems now decided that an extremely minute lichen (or moss) vegetates upon the snow.

On descending the western shore of Baffin's Bay, toward the south, a great change was observed, the sea was clear of ice, and extremely deep; its temperature was increased, the land was high, and the mountains in general free from snow. A noble inlet, 50 miles wide, with high land on both sides, now offered itself to view. Into this the ships entered on the 29th of August, but they had not advanced above thirty miles within it, when to the amazement of all the officers, Captain Ross made a signal to tack about and return. In explanation of this manœuvre he affirmed that he saw land stretching across the inlet, at a distance of eight leagues. To the imaginary range of hills he gave the name of *Croker's Mountains*. His officers, who felt confident that this great inlet, now recognised as the

Sir James Lancaster's Sound of Baffin, was a strait communicating with an open sea to the westward, were no less mortified than surprised on finding that their commander was about to leave it without any farther investigation. Captain Ross directed his course homeward, and arrived in England without any accident.

### PARRY'S FIRST EXPEDITION.

The failure of Captain Ross, so far from disheartening the advocates of a north-west passage, added new particulars in favour of their views. *Lieutenant Parry*, who sailed with Captain Ross, but who dissented from him, as to the practicability of a north-west passage, was appointed to command an expedition to follow the tracks of former navigators, and to proceed as far as circumstances rendered practicable. The ships sailed from the river Thames on the 5th of May, 1819, and on the 15th of June, Cape Farewell, the southern Cape of Greenland, was descried at a distance of more than 40 leagues. The day after they fell in with a number of icebergs. As they proceeded up Davis' Straits and Baffin's Bay, the ice on the westward presented a continuous barrier. After much difficulty the ships reached lat. 73 deg. and Captain Parry being unwilling to pass the latitude of Sir James Lancaster's Sound, resolved to make a desperate effort to penetrate the ice, occupying the middle of the inland sea, which was accomplished in seven days, after cutting through an accumulation of ice eighty miles in breadth. As soon as the western side of this barrier was

gained, our voyagers found themselves in an open sea, free from ice, and also abounding in whales. They sailed westward with a fresh breeze, elated with the hope that they had now reached the Polar Sea. They saw land ahead when they had reached longitude 83 deg. 12 min., which checked any farther progress in that direction. To the south a broad inlet ten leagues wide presented itself to view. Our navigators entered it, expecting to find a clearer passage to the westward. They had hitherto observed that from the moment of entering Lancaster's Sound, the sluggish movement of the compass cards, and the irregularity occasioned by the attraction of the ship's irons, had uniformly increased as they proceeded westward; but in descending this inlet the compass actually lost the power of motion, and they saw for the first time "the curious phenomenon of the directive power of the needle becoming so weak as to be completely overcome by the attraction of the ship; so that the needle might now be properly said to point to the north pole of the ship." The inlet in which they were proceeding, opened out as they advanced southward; and as the western side continually receded to the south-west, their hopes of reaching the sea in that direction increased. The ships had proceeded south 120 miles from the mouth of this inlet, when the great quantities of ice obliged them to return to Barrow's Strait, as they named the great inlet of which Lancaster's Sound is the mouth. On arriving here, the sea, which a few days before had been covered with ice, was now found perfectly

free, and they were enabled to steer westward. On the 22d an opening eight leagues wide was seen to the north in longitude 92¼ deg. which they called *Wellington Channel*, but the ice and fogs prevented all attempts to navigate it. They however continued to proceed to the westward along the shore of a large island which they named *Bathurst Island*. The magnetic observations made here compared with those made in Prince Regent's Inlet, "led to the conclusion," says Captain Sabine, "that we had, in sailing over the space included between these two meridians, crossed immediately to the northward of the magnetic pole, and had undoubtedly passed over one of those spots upon the globe where the needle would have been found to vary 180 deg., or in other words, where its north pole would have pointed due south. This spot would in all probability be found somewhere in the longitude of 100 deg. west from Greenwich." Our navigator's after discovering *Melville Island* succeeded in passing the longitude of 110 deg. west, being farther than any former navigator had ever ventured in these seas, and therefore entitling them to the reward of £5000 granted them by Parliament as the first prize. A projecting point of land in this longitude they therefore named *Bounty Cape*. A good roadstead discovered at no great distance they called the *Bay of the Hecla and Griper*, (after the two ships,) at the head of which they found it necessary to winter, therefore calling the place *Winter Harbour*. Soon after they had chosen their winter quarters the sun disappeared entirely, and they

had now to prepare themselves for a cold tedious winter of nine months. It called forth all the energies of the officers to devise means of employment and amusement for the men during this gloomy season, accordingly hunting was resorted to, when practicable. To amuse the men, Captain Parry and his officers got up a play, to the performance of which the sailors testified their applause by three hearty cheers. They also contributed to a Weekly Paper, entitled the *North Georgia Gazette* and *Winter Chronicle*.

The ships were well furnished with stoves and furnaces, and although the thermometer frequently stood from 30 to 50 deg. below zero, the temperature in the cabins, by means of heated air, was raised from 50 to 70 deg. above zero. On the 7th of February the sun again made his appearance, yet this month was by far the coldest part of winter. On the 15th the thermometer descended to 55 deg. below zero, at which time Captain Parry amused himself with freezing mercury. It may be supposed that these ice-bound prisoners hailed the approach of spring with feelings of great delight. On the 24th of May, a shower of rain cheered them with the prospect that they were soon to be released. On the first of June Captain Parry with some of his officers commenced a survey of Melville Island, and discovered its northern extremity, without seeing any land either to the northward or westward, but an attempt commenced on the first of August to go beyond the western end of Melville's Island, was on the 16th of the same month given up as impracticable.

The farthest point reached in the Polar Sea was lat. 74 deg. 26 min. 25 sec. and long. 113 deg. 46 min. 43 sec. On leaving Sir James Lancaster's Sound, the ship coasted along the western shore of Baffin's Bay for the purpose of observing its coasts, which they found to be indented with numerous bays and harbours. On the 26th of September they steered for England, and about the middle of November the crews landed at the mouth of the Thames, highly delighted once more to reach their native shore, after an absence of nearly eighteen months.

### PARRY'S SECOND VOYAGE.

ALTHOUGH the voyage of Captain Parry did not lead to the discovery of a north-west passage, it induced the belief that he was only prevented by the quantities of ice, which occasionally break up and allow a free passage. The Hecla had answered so well on her former voyage that the Fury, a similar ship, was appointed to attend her on a second one. Captain Parry was directed by his instructions to commence his examination of the coast, after he had reached some point which he was sure was the continent of America, and thence proceeding to the northward, to keep along the coast, minutely exploring every inlet or opening that occurred, in order to ascertain the north-east point of that continent, around which it was hoped he might reach the open sea, and thus effect his passage round Icy Cape, and through Behring's Straits to the Pacific Ocean. The ships left the Nore on the 8th of May, 1821, and after many impediments from the ice, en-

tered Hudson's Strait and reached the channel formed by Southampton Island and the main land, on the 2d of August. Steering still farther to the west, Captain Parry entered a bay on the eastern side of Southampton Island, which he called the *Duke of York's Bay*. Still proceeding in a northerly direction, a fresh gale from the south bore them unawares into Repulse Bay, in which not a piece of ice was seen. The season was spent in making observations on the surrounding coast, and during September, they gave names to *Lyon's Inlet*, *Hoppner's Inlet*, *Gore Bay*, *Ross Bay*, &c. New ice now warned them of the approach of winter, and the thermometer at this time stood at zero. A small island presented itself to the north of Lyon's Inlet, which they called *Winter Island*, and being found to afford good anchorage on its southern side, the ships were here allowed to be frozen up.

The ships were better furnished than before with conveniences for a long arctic winter. The same expedients were resorted to in this voyage as in the preceding one, for the entertainment of the crews. A school was also established in each ship, from which the men derived equal profit and entertainment. The evenings were spent in music and theatrical entertainments. But what chiefly contributed to relieve the tediousness of a long and gloomy winter, was a visit from a party of Esquimaux, who were seen approaching the ships across the ice on the first of February. These people invited our voyagers to their huts, where they were surprised at finding them furnished with canoes, sledges, and dogs,

and every thing as permanently fixed as if they had occupied the same spot the whole winter. In the construction of these huts not a single material was used but snow and ice. After creeping through two lower passages, each having its arched door-way, they came to a small circular apartment, of which the roof was a perfect arched dome. From this, three door-ways also arched, and of larger dimensions than the outer ones, led into as many inhabited apartments, one on each side and the other facing them as they entered. The interior of these presented a scene no less novel than interesting; the women were seated on their beds at the sides of their huts, each having her little fire-place or lamp, with all her domestic utensils about her. The construction of this inhabited part of the hut was similar to that of the outer apartment, being a dome, formed by separate blocks of snow laid with great regularity, and no small art, each being cut into the shape requisite to form a substantial arch, from seven to eight feet high in the centre, and having no support whatever but what this principle of building supplies. Sufficient light was admitted into these curious edifices, by a circular window of ice, neatly fitted into the roof of each apartment. In their character these Esquimaux appear to be inoffensive and remarkably honest, and unlike most savage countries their women are exempted from the labour and drudgery, being confined to making clothes, cooking, and other domestic concerns. The Esquimaux exhibited in most things an extreme deficiency in intellect, for few of them

could count beyond five. One of the tribe, a woman named Iligluick, was a wonderful exception to the rest, indeed she manifested such marks of intelligence as immediately to attract the attention of her visiters. She had a natural taste for music, sang sweetly herself, and would sit for hours together and listen to performances on an organ. She drew a chart of that part of the coast with which she was familiar, and the neighbouring islands. The information thus received was confirmed by other Esquimaux, who were requested to draw charts of the countries within their own knowledge; their delineations of the coast made without any concert agreed in a surprising manner.

Spring made its appearance at Winter Island more tardily if possible than at Melville Island, although the former place was situated 8½ degrees farther to the south. After having spent nine months in this dreary abode, the ships on the 2d of July, after great difficulty, effected an escape; but a current setting to the southward down Fox's channel, which they now proceeded to examine, carried with it such vast quantities of ice, as involved them in continual danger. By unremitting perseverance, however, they reached, by the 12th of July, a small opening in the land in lat. 67 deg. 18 min., out of which a current was observed to issue. As this offered a security against the ice, Captain Parry and his officers went on shore to examine the country, and found to their great delight, bright green hills, and silver streams leaping from crag to crag, which had just escaped from their icy cells and were

melting away before the genial influence of the returning sun. The information which they had received from the Esquimaux was found to coincide with their discoveries. Our voyagers now approached the place where the Esquimaux, whose statement had proved to be correct, had marked a strait conducting to the western sea. Up this strait it was their intention to sail, but to their great disappointment, they found an impenetrable barrier of ice, evidently not of recent formation, thus leaving no hopes of future success. After struggling sixty-five days to force a passage to the westward, they returned as far back as the island of Iloolik, where they were frozen in on the 30th of October. The weather, at this season, was intensely cold, the thermometer standing at one time nine degrees below zero. The crews did not as cheerfully submit to the necessity of spending another winter in these frozen regions, as in the preceding voyage; for those means which had been resorted to on former occasions, to keep alive the spirits of the sailors, seemed to have lost their novelty, and although no discontents arose, it required all the skill and ability of the officers to preserve animation among the crews, a very essential antidote to the scurvy. They found employment when the weather would permit, in erecting a snow wall around the ships, thus adding to their comfort by keeping out snow drift, and forming a shelter from the northern blasts. This art had been taught them by the Esquimaux, whose company not a little contributed to enliven the tedious monotony of the scene. The officers

made excursions on both sides of the strait, which Captain Parry named the *Strait of the Hecla and Fury*. In its narrowest part it is two miles across, forming a canal of nearly uniform width, and about three miles in length. The land on the south or continental side, is a great peninsula, called by Captain Parry, *Melville Peninsula*. The land on the north, he named *Cockburn Island*. Some of the officers made an excursion of about sixty miles to the western side of this island, and discovered a *Polar Sea*, stretching far to the westward, and they were informed by the Esquimaux (whose geographical information had in so many cases proved correct) that it was surrounded by water, but the mountains of ice, with which the strait was continually closed up, left no hope that it could ever be navigated.

It was not until the 12th of August that Captain Parry found himself released from his icy prison, and once more sailing in an unfrozen sea, which was effected by sawing a canal through the ice for the ships to pass through of four or five miles in length, an arduous task, which nothing but impatience of confinement could have induced them to attempt. The sea seen to the west of Cockburn Island was believed by the officers to communicate with Hudson's Bay by the Strait of the Hecla and Fury, and unwilling to return without completing the object of his voyage, Captain Parry conceived the bold design of unlading the Hecla of her stores, and remaining in the Fury to spend another winter in the ice, and prosecute his passage the ensuing sea-

son. This scheme was frustrated by the appearance of scurvy among the sailors, when the dread of having to contend with this formidable disease induced Captain Parry to renounce his attempt, and proceed with all possible haste to England. On the 10th of October 1823, the ships arrived at Lerwick in the Shetland Islands, and in a few days arrived at the mouth of the Thames.

Although in these two voyages Captain Parry had been unsuccessful as to the main object of his missions, yet certainly they have added much to our knowledge of Arctic Geography; and considering the difficulties and dangers he had to encounter, may be considered as wonderfully successful. The perseverance of this accomplished navigator, has earned for him a fame which will ever rank his voyages among the most brilliant achievements ever undertaken in any age, and will transmit his name to posterity the wonder and delight of succeeding generations.

### PARRY'S THIRD VOYAGE.

The prospect of a passage beyond the western extremity of Melville Island was now abandoned, as the ice which prevented Captain Parry in his first voyage from penetrating that sea seemed to be of a permanent nature, but the frozen masses he had observed in Prince Regent's Inlet seemed to be accidental accumulations, which disappear instantaneously by change of wind and other circumstances. This pass extending south-west Captain Parry sup-

posed had a communication with the sea to the west of Cockburn Island, and he conceived that by reaching this strait early in the season, he might find the ice breaking, which would insure him an uninterrupted course to the great sea bounding the northern coast of America. Such confidence was placed in this opinion of Captain Parry that he was a third time fitted out with the Hecla and Fury, the former commanded by himself, the latter by Lieutenant Hoppner. In this, the least successful of Captain Parry's voyages, he was thwarted by a continued series of misfortunes. He left England on the 19th of May, 1824, and by the middle of June was in Davis's Straits, but was so embarrassed with ice in attempting to navigate Hudson's Bay that it was with the greatest difficulty he reached Port Bowen at the mouth of Prince Regent's Inlet. To his great mortification he found the season too far advanced; had he arrived three weeks earlier, which he would have done had his voyage been propitious, he believed the passage might have been effected. The winter was spent at Port Bowen, where the amusements to beguile the dulness of the scene were similar to those resorted to at Melville Island and at Iloolik. The men were occupied in school, and amused with masquerades. Experience had suggested such improvements in the art of warming the ships that they were enabled to keep up a temperature of from 50 to 60 degrees.

By the 12th of July the ice began to break up, a signal for our voyagers to commence active operations. Attempting to coast along the

western shore of the bay their progress was impeded by a continuous barrier of ice; and in a fruitless attempt to penetrate to the southward, the Fury was so injured by gales of wind and broken ice, as to render her unmanageable; she was therefore abandoned with all her stores, and the officers and men embarked in the Hecla for England. Captain Parry did not proceed as far down Regent's Inlet as he had done in his first voyage.

### PARRY'S FOURTH VOYAGE.

THUS disappointed in his sanguine expectations of a north-west passage, Captain (now Sir Edward) Parry turned his enterprising views in another direction, and conceived the bold design of penetrating the frozen sea to the North Pole.

Uniting his own views with those of Mr. Scoresby, who had, in 1806, approached nearly to the 82d degree of latitude, by the way of Spitzbergen, he believed this might be effected by employing light boats and sledges, which might be alternately employed according as compact fields of ice or open sea interposed. The Royal Society recommended it to the Admiralty, who again fitted out the Hecla, and placed her under the command of Captain Parry. Two boats were constructed combining in the highest degree the requisite qualities of strength and lightness; they were covered with waterproof canvas, and lined with felt; runners were also placed under them on each side of the keel, that they might be used for sledges, as occasion might require. The adventurers sailed on the

27th of March, 1827, and entered the harbour of Hammerfest in Norway, where they took on board eight reindeer with sufficient quantity of moss for their provender. Much time was lost in working the ship to the north; where they found their passage so impeded by huge and irregular masses of ice thrown promiscuously together by violent gales and commotions in the sea that the ships was exposed to the most imminent danger. When at length they had proceeded as far as their ship would carry them, she was fixed in a good harbour, and on the 22d of June our adventurers commenced their extraordinary journey. From the rugged and broken nature of the ice, which was no where seen in compact fields, it was necessary to relinquish the design of employing reindeer. It required a zeal little short of enthusiasm, to undergo voluntarily the toil of this expedition. When the travellers arrived at a pool of water in the ice, they were obliged to launch their boats and embark. On reaching the opposite side their boats were then to be dragged frequently up steep and dangerous cliffs of ice, their lading being first removed. In this laborious process they were able to effect but eight miles in five days. They travelled only during the night, by that means avoiding the danger of snow-blindness. On the 22d of July they advanced seventeen miles, the greatest distance they had yet been able to effect in one day, but the delays they had already encountered were sufficient to destroy all hopes of being able to reach the pole, still 500 miles distant. They had advanced as far

as 82 deg. 40 min. north, and now limited their ambition to reaching the parallel of 83 deg., but the wind from the north bore them, with the drifting fields of ice, in an opposite direction, so that they found themselves fourteen miles farther to the south than the spot they had occupied on the 22d. It seemed obviously vain, under these circumstances, to persist any longer. Our voyagers returned, therefore, and arrived at Hecla Cove in the Island of Spitzbergen on the 21st of August, with the consolation that if they had not reached the pole, they had advanced one degree farther to the north than any former navigator of complete authenticity.

### CAPTAIN FRANKLIN'S FIRST JOURNEY.

During Captain Parry's voyages to the north-west to explore a passage to the Pacific Ocean, another expedition was fitted out to commence an over-land journey to ascertain the true position of the *Coppermine River*, and of the windings of the shore to the eastward of it. It had for its object a desire for geographical researches, and also to ascertain, if possible, the limit of that sea, which north-west navigators had so long vainly endeavored to penetrate. *Lieutenant* (now Captain) *Franklin* was intrusted with the care of the expedition, accompanied by Doctor Richardson, a distinguished naturalist, Mr. Hood, Mr. Back, two midshipmen, and two English seamen. Captain Franklin and his companions embarked from England in May, 1819, and landed safely at York Factory in August.

They immediately commenced making prepa-

rations for their long and tedious journey, having collected all the information they could gain from the fur traders, who had made long journeys westward for traffic. On the 9th of September, the journey was commenced from York Fort, and on the 22d of October, our travellers arrived at Cumberland House, a distance of 690 miles. The lateness of the season did not deter Captain Franklin from forcing his way to Fort Chippewayan, at the western extremity of Athabasca Lake, in order that he might personally superintend the preparations for the ensuing summer. He accordingly set out with Mr. Back, on the 18th of January, and arrived at the Fort on the 26th of March, thus performing a journey of 857 miles in the very depth of winter, the thermometer descending to 40, and frequently to 50 degrees below zero. To persons unused to the severities of arctic climates, these statements would appear almost incredible, yet we are induced to believe that they are not exaggerated when we reflect that those journeys could never have been effected without all that exposure to the extreme cold which these climates are subject to. When the navigable rivers were frozen, they travelled on the ice in sledges drawn by dogs, and at night they slept in the open air, wrapt in their furs, with their dogs lying round them to keep off cold, and also to emit warmth. Their greatest dread in these expeditions was that of perishing for want of food. When violent snow storms arise, the travellers often lose their way, and are obliged sometimes to kill their dogs to prevent

them from dying of hunger. The moose, the reindeer, and the bison, appear to be quite expelled from the great plains between Hudson's Bay and the Mackenzie's River, and furred animals are likewise so scarce, that they will probably be extinct in a few years, east of the Rocky Mountains. The Indians, as well as the beasts, appear to be rapidly dwindling away before the face of European population. Disease, engendered by the too free use of spirituous liquors, has gradually swept away their numbers, so that the once powerful *Knistenax*, who spread over an extent of country 20,000 miles square, will not at present exceed 500 in number, and a very rational conclusion at this rate would be that they will, ere long, be extinguished from the face of the earth.

As soon as spring made its appearance, Mr. Hood and Dr. Richardson set forward to join their companions at Fort Chippewayan. It may naturally be concluded that spring in these climates is hailed with a joyful welcome, when every object that meets the eye has for a period of eight months been clad with the snowy garb of winter. In fact, this period scarcely deserves the name of Spring, as that season is here almost entirely unknown, so rapidly do the snows melt away, the rivers begin to flow, the birds to sing, and vegetation to deck the face of nature around them. It seems more like a sudden transition from one region to another, than the regular interchange of the seasons with which our climate is so agreeably diversified. The whole party were now assembled at

Chippewayan, and on the 18th of July, 1820, set forward on their journey, indulging the hope that before the warm season should expire, they might find comfortable quarters at the mouth of the Coppermine River, and in the ensuing spring they might commence an examination of the coast to the eastward. But the usual difficulties attending such undertakings, prevented their anticipations from being fully realized. The rapids of the rivers, the shallows of the lakes, and the numerous portages from one portion of water to another, impeded the progress of our travellers so much that they began to suffer for want of provisions, and, in consequence, great discontent was manifested by the Canadian boatmen, unhappily marring the cordiality which ought to subsist among all engaged in so hazardous an enterprise. By the 20th of August, new ice began to appear, and birds were seen flying to the south, an unequivocal sign of approaching winter. The Canadian hunters declared that it would be impossible to proceed, and Captain Franklin was obliged to forego the prospect of reaching the mouth of the Coppermine the present season, and the party began to make preparations for winter quarters, at a spot which they had now reached, distant 550 miles from Chippewayan. On an elevation near the bank of a stream to which they gave the name of *Winter River*, the Canadians constructed a house, calling it *Fort Enterprise*, in lat. 64 deg. 28 min. long. 113 deg. 6 min. As soon as our travellers and their retinue were settled in their winter quarters, they began to

employ themselves in laying up stores of provisions for their sustenance during the period of their stay here. They accordingly sallied forth in quest of reindeer, whose flesh is so palatable converted into dried meat, and in the course of their rambles not fewer than 180 were taken; but this apparently bountiful stock was barely sufficient to sustain the party, and the train of Indians who crowded to the fort to live on the charity of the whites. As their ammunition and other stores had not arrived from the south, Mr. Back, attended by some Canadians and Indians, set out on the 18th of October to return to Chippewayan, and after an absence of five months arrived at Fort Enterprise, after having experienced the severest hardships. Their journey of 1104 miles was performed in snow-shoes on foot, a mode of travelling indescribably painful, and having no covering at night but blankets and deer-skins. The thermometer frequently was at 40 deg. and at one time 59 deg. below zero; and to add to their sufferings, they had sometimes to travel two or three days without tasting food. Those who remained at Fort Enterprise suffered nearly as much from the cold, the thermometer at one time indicating a temperature three degrees colder than any that Captain Parry experienced at Melville Island, which is nine degrees nearer the pole. Two Esquimaux interpreters from Hudson's Bay accompanied Mr. Hood to Fort Enterprise, where they taught our adventurers the art of building snow houses, which they contended were warmer and more agreeable than those

made of wood. The officers spent their winter in drawing and writing their journals, and were not a little entertained with the opportunity afforded them of studying the Indian character. The old chief of the Copper Indians had a daughter, who was so celebrated a beauty among her tribe that she had already belonged to two husbands, although scarcely sixteen years old. Mr. Hood amused himself with drawing her likeness; great was her mother's anxiety, who feared the chief of their country might after seeing the portrait insist on having the original. It was the 14th of June, 1821, before the ice was sufficiently broken up in the Coppermine to allow our travellers to navigate it in canoes. Their stock of provisions was at this time nearly exhausted, which compelled them to the necessity of hunting for a subsistence. The grassy plains on either side of the Coppermine abounded with game, but when compelled to exertion the hunters exhibited great symptoms of insubordination. On the 18th of July our travellers reached the mouth of the Coppermine River, and here the Indians, terrified at the thoughts of meeting the Esquimaux, with whom they carried on a continual warfare, determined to return. The Canadians, though elated at once with a view of the sea, were terrified with the thoughts of launching in it. It required much pains to prevent them from sinking into despondency, and certainly it did require more than ordinary courage to embark at so late a season upon so perilous a sea. On the 21st of July twenty people, fifteen of whom had never seen salt water,

launched on the Polar Sea in two bark canoes, with provisions for only 15 days, and a voyage before them of indefinite extent. The farthest point which our navigators reached was Point Turnagain, in lat. 68½. The passage between this point and Cape Barrow, Captain Franklin named *George the Fourth's Coronation Gulf.* Captain Franklin found it impossible to proceed any farther, since his provisions began to fail, and determined to proceed up *Hood's River* at the foot of Coronation Gulf, as far as it was navigable, and then to strike across the country to Fort Enterprise, instead of retracing his course to the Coppermine River as he had originally intended. The sufferings of the travellers during this journey were exceedingly painful. Severe storms of snow impeded their progress, and the sun being hid, which prevented their making celestial observations, compelled them to grope their way through an unknown country; and to add to their distress, famine attended them, from the want of opportunities to hunt for game. During a journey of three weeks they had only sustenance sufficient to last them five days, and were therefore compelled to the necessity of feeding upon lichens; but even this unpalatable weed was found in such small quantities, that they had to pass some days without a meal. On the 26th of September, when they arrived at the banks of the Coppermine, the weather had become more mild, game had become more plentiful, and hope once more cheered our travellers with the prospect of a tolerable degree of comfort; but this flattering prospect soon changed its ap-

pearance, for having crossed the river, the weather, which had before been mild, now began to resume its severity. It was now the 4th of October, Fort Enterprise was forty miles off, their provisions were entirely exhausted, and they were now in the most deplorable condition; their strength fast declining, from famine, cold, and intense anxiety. Mr. Back and some Canadians hastened forward, with the hope of meeting a band of Indian hunters in the neighbourhood of Fort Enterprise. A few days after Captain Franklin with seven of the party proceeded onward, leaving Dr. Richardson and Mr. Hood to take care of those who were unable to proceed. They were then twenty-four miles from Fort Enterprise when this separation took place. Four of those who set out with Captain Franklin left him in the course of his journey, being unable to proceed, but Michael, an Iroquois, returned to Dr. Richardson's party, the other three were heard of no more. Captain Franklin reached the fort on the 11th of October completely exhausted, not having tasted any food for five days, and to his utter dismay he found the fort entirely deserted, not a morsel of provisions, and the ground covered with snow. He left his cabin and set out in quest of the Indians, that he might proceed to the relief of Dr. Richardson's party, but his strength failed him in the attempt, and he was obliged to return to his desolate abode. Eighteen days passed over him in this miserable condition, with no other food than the bones and skins of some animals that had been killed the year before, made into

a kind of soup; when, on the 29th of October, Dr. Richardson and John Hepburn made their appearance, but without the rest of the party. Dr. Richardson had now a melancholy tale to relate. For the first two days his party had nothing whatever to eat. On the third day, Michael arrived with a hare and partridge; then another day passed without food. On the 11th Michael offered them some flesh, which he said was part of a wolf, but they were afterwards convinced that it was the flesh of one of the unfortunate men who had left Captain Franklin's party to return to Dr. Richardson. Michael was growing daily more shy, and it was strongly suspected that he had hidden a supply of meat for his own use. On the 20th, while Hepburn was cutting wood near the tent, he heard the report of a gun, and looking towards the spot, saw Michael dart into the tent. Mr. Hood was found dead; a ball had entered the back part of his head, and there could be no doubt but Michael was the murderer. He now became more mistrustful and outrageous than before, and as his strength exceeded any of the rest, and being well armed too, there seemed no safety but in his death. "I determined," says Dr. Richardson, "on taking the whole responsibility on myself, and immediately on Michael's coming up, I put an end to his life by shooting him through the head." They employed six days in coming 24 miles, and existed on lichens and the skin cloak of Mr. Hood. On the evening of the 29th they came in sight of the fort, and were delighted to see the smoke issuing from the chim-

ney, but the absence of footsteps in the snow filled them with gloomy forebodings, which were not abated on entering the miserable cabin. Two days after the arrival of Dr. Richardson two of the Indians who accompanied Captain Franklin died of want. The only remaining man, and the Captain himself, were so reduced, that a few hours would in all likelihood have terminated their existence. Dr. Richardson and Hepburn felt themselves also rapidly declining, when, on the 7th of November, three Indians, sent by Mr. Back, brought the long expected relief. The Indians attended to the famished travellers with a kindness well worthy of civilized communities. When the party had acquired a little strength, they left the fort, and proceeded to the nearest of the Company's posts, where they met with their companion, Mr. Back, to whose resolution and physical strength the expedition owed its future success and its ultimate safety. The results of this journey, which, including the navigation along the coast, extended to 5500 miles, are obviously of the greatest importance to geography. As the coast running northward was followed to Cape Turnagain, in lat. 68½ deg. it is evident that if a north-west passage exist, it must be found beyond this limit. The officers of the expedition had many opportunities during their residence at Fort Enterprise of studying the phenomena, electrical, magnetic, and atmospheric, which accompany the aurora borealis. This meteor it appears is more vivid and frequent in the neighbourhood of the arctic circle

than in higher latitudes. It was concluded from a vast number of experiments, that the magnetic needle was affected by the aurora under certain circumstances. The observations of the officers also led them to conclude, that the aurora, instead of being beyond the region of the atmosphere, is rarely at a height exceeding six or seven miles. In travelling through the valleys which intersect the Copper Mountains, Dr. Richardson picked up some plates of native copper, various ores of the same metal, and trap rock associated with it. Some ice chisels formed of pure copper were afterwards found among the Esquimaux. The sustenance afforded by the provisions which the Indians had thus timely brought to the miserable party at Fort Enterprise, soon recruited their emaciated frames, and in the May following they again set out on their journey homeward, and reached York Fort on Hudson's Bay, after a journey of 5550 miles.

### CAPTAIN FRANKLIN'S SECOND EXPEDITION.

THE hardships endured in the late expedition would have deterred men less courageous than *Captain Franklin* and his companions from engaging in another similar enterprise; but at the time when government sent out Captain Parry to seek a north-west passage by way of Regent's Inlet, Captain Franklin offered himself to undertake a journey for the purpose of surveying the coast westward of Mackenzie's River. By dearly bought experience he had learned to provide against those evils which his former expe-

dition was subject to, and having forwarded agents to the Hudson's Bay Company, for the purpose of laying in a store of provisions, Captain Franklin, Dr. Richardson, Mr. Back, and Mr. Kendal, proceeded, in 1825, by the way of New-York. Boats had been constructed and forwarded in 1824, with the baggage and stores, to proceed into the interior from Hudson's Bay. Their instructions directed them to form their winter establishments in the neighbourhood of Great Bear Lake, and in the spring of 1826 to proceed down the Mackenzie's River. At the mouth of this river the travellers were to separate; Captain Franklin and Mr. Back to go westward, to endeavour to reach Kotzebue's Inlet, where they might expect to reach the Blossom frigate, commanded by Captain Beechey; Dr. Richardson and Mr. Kendal were at the same time to proceed to the east, to examine the line of coast between the mouths of the Mackenzie and Coppermine. The officers having proceeded by the way of New-York, Niagara, and Lake Superior, overtook the boats in Mythe River on the 29th of June, 1825. This spot is situated near the head waters of the rivers that flow into Hudson's Bay, in lat. 56 deg. 10 min. long. 108 deg. 55 min. The officers had travelled 2800 miles and the boats 1200, before they met together. Our travellers had an easy passage down the Mackenzie, although their view was occasionally impeded by the smoke of woods on fire. In lat. 62 deg. stands Fort Simpson, at the confluence of the Mackenzie and the River of the Mountains, descending from

the west. By this river the traders procure provisions, and other articles, among which potatoes are brought in abundance, the cultivation of this useful vegetable having been successfully introduced into this forbidding climate. The Mackenzie here widens into a majestic stream of two miles in width. Our travellers were now at no great distance from Great Bear Lake, and as the season was likely to be favourable five or six weeks, it was resolved that Captain Franklin and Mr. Kendal should descend the river to the sea and survey its mouth, by which they might abridge the operations of the ensuing summer. Dr. Richardson was at the same time to examine the east side of Great Bear Lake, while Mr. Back was directed to make preparations for the approaching winter. A few miles above Bear Lake River and near its mouth, the banks of the Mackenzie contain much good coal, which was on fire in 1825, as it had been observed by Mackenzie in his voyage to the sea. The scenery on the banks of the Mackenzie is beautifully romantic; in one place it passes through a defile of rocks seven miles in length, and sometimes 150 feet high. These rocks are worn by the streams falling over them into the river, and assume the most fantastic shapes, resembling churches, steeples, and Gothic arches. On the 10th of August, Captain Franklin arrived at Fort Good Hope, the lowest of the Company's establishments, situated in lat. 67 deg. 28 min. 21 sec. and long. 130 deg. 51 min. 38 sec. This fort was established for the purpose of carrying on trade

with the Indians. On approaching the sea, Captain Franklin embarked upon that element, and found the water quite fresh near the shore, but at a distance where he lost sight of the main land, he saw an island, on which he landed, and here the water was found to be decidedly salt. The sea to the north appeared to be quite free from ice, and seals and whales were seen sporting on its surface. On this island the flag-staff was hoisted, in case that Captain Parry on entering that sea might pass the island. Captain Franklin wrote two letters describing his voyage, one of which he placed at the foot of the flag-staff, and the other was sent afloat upon the sea, enclosed in a water proof box, which although directed to Captain Parry, he appears never to have been the wiser for. This island, situated in lat. 69 deg. 20 min. long. 135 deg. 41 min. Captain Franklin named *Garry Island.* Captain Franklin's discoveries agree so nearly with those of his predecessor Mackenzie, who had first discovered this sea and the river which bears his name, that he seems now to be relied on as an authentic narrator, although before the corroborations of Franklin, much doubt was thrown over his calculations. Having examined satisfactorily the mouth of the Mackenzie, our travellers commenced their return; and it deserves to be noticed, that towards the latter part of August the weather was quite warm, the thermometer standing at 66 deg. in the shade, and at 76 deg. when exposed to the sun. This elevation to us, would seem nothing more than a pleasant temperature, but these hardy adven-

turers, who could buffet the rigours of a polar winter, would feel such an atmosphere quite debilitating. The mountains in the neighbourhood of Mackenzie's River were of great elevation, and some of them exceedingly romantic in appearance. Captain Franklin and his party arrived at their winter quarters on Great Bear Lake on the 5th of September, to which the officers in his absence had given the name of *Fort Franklin*. Dr. Richardson had previously returned from his expedition, having performed his journey much to his satisfaction, and fixed upon the place to which the eastern expedition should direct their steps, on their return from the Coppermine River the following season. Their dwellings at Fort Franklin were comfortably constructed, and the winter passed away very agreeably, considering the privations they must necessarily have experienced so far from their own homes. The officers employed much of their time in drawing and writing their journals, and the men were occupied in a school, taught by the officers. After the ground had become completely covered with snow, taking excursions in sledges drawn by dogs was a favourite amusement. In April warm weather commenced, though the ground was still covered with snow; and Dr. Richardson and Mr. Kendal completed the survey of Great Bear Lake, while the men at the fort were employed in building a large boat. On the 22d of June the whole party embarked, to fulfil the great object of their expedition. The weather was now warm, the thermometer standing at 71 deg. in

the shade. On the 4th of July they reached the fork where the mouths of the Mackenzie separate to run east and west. This point they named *Point Separation.* Our adventurers separated into two parties, one to proceed towards the east and the other to the west; forming a striking contrast with the preceding voyage. Now, instead of a light bark canoe, they were launched in safe, well built boats, and furnished with three month's provisions. Captain Franklin's party had gained the sea and entered a wide bay, on the shores of which they perceived a party of Esquimaux. These came out to meet them in great numbers in canoes, and seemed highly pleased when they learned from the interpreter that the object of the whites was to traffic with the Indians. Their direction was now to the north-west, but their progress was soon arrested by large quantities of ice, and as the season when it breaks up had now arrived, they found it necessary to repair to the shore to wait for the ice to disappear. They were here met by another party of Esquimaux, who had never before seen the face of a white man. They informed our travellers that as soon as the wind should blow from the shore, the ice would disappear, and afford a free passage for the boats, but farther to the westward the ice often remains during the whole year, and when it does break away, it is carried but a short distance from the shore, so that a strong wind would drive it back again. As soon as the ice would permit, our voyagers again put to sea, and reached an island which Captain Franklin

named in honour of the astronomer *Herschel.* Here again they met with Esquimaux, who were found with knives and other iron instruments, and when interrogated as to the way in which they procured them, they replied that they received them from a tribe of Esquimaux who lived to the westward, and who carried on a traffic with some white people who lived still farther to the west. Hence the conclusion that the white people alluded to are the Russian traders near the coast of the Pacific. In prosecuting their voyage westward they had many difficulties to encounter from thick fogs and broken ice. A large river flowing into the sea in long. 141 deg. separating Russian from British America they called *Clarence River*, and another still further to the west received the name of *Canning River.* The farthest point which it was found practicable to reach they called *Return Point*, and 15 miles farther west, a promontory which they descried, they named *Point Beechey*, in lat. 70 deg. 24 min. N. lon. 149 deg. 31 min. W. The ice preventing any farther progress in a westerly direction, and fearing to endanger the lives of his companions, as the season was far advanced, on the 18th of August, 1826, Captain Franklin thought it prudent to retrace their way towards the Mackenzie, and return to Fort Franklin, which they reached on the 21st of September, having accomplished in three months a voyage of 2048 miles, and traced the shore to the west of Mackenzie's River a distance of 374 miles. A

river near the mouth of the Mackenzie, emptying into the sea, was named *Peel's River*.

The progress of Dr. Richardson's party to the eastward was attended with much less difficulty. He was favoured with a current from the eastward, and had a bolder shore and deeper water to sail in. In their way they also met with a party of Esquimaux, who, contrary to accounts, were quite inoffensive, except on one occasion they attempted to seize the boats, but desisted on being presented with fire-arms. Dr. Richardson received from these people an account of a great lake extending about 150 miles from east to west, at no great distance from the shore, and about 140 miles from north to south. Esquimaux Lake, as this sheet of water is called, communicates with the Mackenzie, besides receiving two other large streams. Dr. Richardson's party followed the shores of two extensive bays, which he named *Liverpool* and *Franklin Bays*. As they approached the estuary of the Coppermine, land was descried to the north, and as they advanced they found it unconnected with the main shore, from which it was separated by a channel of from 12 to 20 miles wide. This island received the name of *Wollaston Land*. The length of coast examined between the Mackenzie and Coppermine Rivers was 902 miles. Success attended every part of the eastern expedition, and on the 1st of September the adventurers arrived at Fort Franklin.

The number of miles travelled by both parties of the expedition, from their landing in America until their embarkation for England,

is 14,185 miles. The distance from New-York city to Point Beechey on the Arctic Sea was estimated at 5040 miles. The expedition wintered at Fort Franklin, and in the spring of 1827 part of the officers and men were sent home by the way of Hudson's Bay; Captain Franklin and Dr. Richardson returning to England by way of New-York. They arrived in London on the 29th of September, 1827, having been absent two years, seven months and a half.

In his account of this journey Captain Franklin remarks, that "the opinion he formerly expressed as to the practicability of a northwest passage has been considerably strengthened by the information obtained during his second expedition. The northern coast of America has now been actually surveyed from long. 109 deg. to 149½ deg. west, and again by Captain Beechey from Icy Cape eastward to about 156 deg. west, leaving not more than 50 leagues of unsurveyed coast between Point Turnagain and Icy Cape. Further, the delineation of the west side of Melville Peninsula, in the chart of Captain Parry's second voyage, conjoined with information which was obtained from the northern Indians, fairly warrants the conclusion that the coast preserves an easterly direction from Point Turnagain towards Repulse Bay; and that, in all probability, there are no insurmountable obstacles between this part of the Polar Sea and the extensive openings into the Atlantic, through Prince Regent's Inlet and the Strait of the Fury and Hecla."

### CAPTAIN LYON'S VOYAGE.

THE British government, in order to complete as far as possible the survey of the northern coasts of the continent of America, sent two other expeditions to the Polar Seas, namely one in 1824, commanded by *Captain Lyon*, and the other in 1825, under the command of Captain Beechey. On the 10th of June, 1824, Captain Lyon sailed from England in the Griper, with instructions to winter in Repulse Bay, and in the ensuing spring to cross from the head of that bay to the northern shores of the American continent, which he was to survey westward; so that his survey, joined to that of Dr. Richardson, might complete our knowledge of the shores of the North Polar Sea, from their nearest accessible point to the mouth of Mackenzie's River. The whole voyage of Captain Lyon was a continued struggle with adverse winds and boisterous weather. Late in the season he arrived in the north part of Hudson's Bay, but from the state of the sea and contrary winds he was unable to advance farther, and after various disasters he was compelled to relinquish the attempt and return home.

### CAPTAIN BEECHEY'S VOYAGE.

FROM the nature of the services allotted to Captain Franklin and Dr. Richardson, it was considered nearly impossible that either of the parties under their directions could arrive at the open sea in Behring's Strait, without having exhausted their resources; and being also desti-

tute of a conveyance to a place whence they could return to Europe. To obviate these anticipated difficulties the British government determined upon sending a ship to Behring's Strait, to await in the autumn of 1826 the expected arrival of Captain Franklin's expedition in that neighbourhood; also to afford assistance to Captain Parry, should he have succeeded at that time in effecting a northwest passage, from the Atlantic to the Pacific.

The vessel selected for this service was the sloop of war *Blossom*, mounting sixteen guns, and having a crew of 100 men, to the command of which *Captain Frederick W. Beechey* was appointed. He sailed from Spithead in England, May 19, 1825, with instructions to proceed around Cape Horn to Otaheite and other islands in the Pacific Ocean, and after surveying several groupes of those islands, to steer northward for Behring's Strait, so as to arrive at Kotzebue's Sound, the appointed rendezvous fixed by Captain Franklin and himself, as early as the month of July in the following year. After an interesting and favourable voyage, during which some important discoveries and surveys were made, our voyagers passed through Behring's Strait, and entered Kotzebue's Sound on the 22d of July, 1826, and on the 25th reached the appointed rendezvous at Chamisso Island, ten days later than had been agreed upon by Captains Franklin and Beechey, but which it appeared was quite early enough, as there were no traces of the former having arrived. Leaving signals and provisions on the

island for Captain Franklin, in case he should arrive over land during his absence, Captain Beechey proceeded northward in the ship, and in the middle of August arrived off Icy Cape. This cape, the farthest point reached by Captain Cook in 1778, was at the time of its discovery very much encumbered with ice, whence it received its name; none however was now visible. The cape is very low, and has a large lake at the back of it, which receives the water of a considerable river, communicating with the sea through a narrow channel. There are several winter habitations of the Esquimaux upon the cape, which were afterwards visited by one of the officers. Black whales were seen off the cape in great numbers. Deeming it contrary to his instructions to proceed west of Icy Cape in the ship, Captain Beechey despatched Mr. Elson, the master, with Mr. Smyth the senior mate and eight men, to trace the shore to the north-eastward as far as it was possible for a boat to navigate, with a view to render the earliest possible assistance to Captain Franklin, and to obtain what information he could of the trending of the coast and of the position of the ice. Mr. Elson was further directed not to prolong his absence from the ship beyond the first week in September, and to place landmarks, &c. in conspicuous places for Captain Franklin's guidance. The ship was then steered northward a few miles, and on the 18th August the main body of the ice was seen in lat. 71 deg. 7 min. Returning to Kotzebue's Sound, the ship was anchored at Chamisso Island on the

27th August, to await the return of the barge, which took place on the 10th September. The farthest tongue of land reached by the barge on the 22d August is conspicuous as being the most northerly point yet discovered on the continent of America, and was named by Captain Beechey *Point Barrow*. It lies in lat. 71 deg. 23 min. 31 sec. N. and lon. 156 deg. 21 min. 30 sec. W. 126 miles to the northeast of Icy Cape, and is only 146 miles from Point Beechey, the extreme of Captain Franklin's discoveries in his progress westward from Mackenzie's River. Captain Franklin having commenced his return on the 18th August, 1826, (as has been related page 68,) it will be perceived that if he had continued his course west he might possibly have met Mr. Elson about the last of August, and thus the main objects of both expeditions have been accomplished. On this subject Captain Franklin remarks as follows: "Could I have known, or by possibility imagined, that a party from the Blossom had been at the distance of only 160 miles from me, no difficulties, dangers, or discouraging circumstances, should have prevailed on me to return; but taking into account the uncertainty of all voyages in a sea obstructed by ice, I had no right to expect that the Blossom had advanced beyond Kotzebue Inlet, or that any party from her had doubled Icy Cape. It is useless now to speculate on the probable result of a proceeding which did not take place; but I may observe, that had we gone forward as soon as the weather permitted, namely, on the 18th, it is scarcely possible that any

change of circumstances could have enabled us to overtake the Blossom's barge. I have recently learned by letter from Captain Beechey that the barge turned back on the 25th of August, having been several days beset by the ice."

About 70 miles of coast having been surveyed by Mr. Elson, in addition to those discovered by the Blossom, 126 miles have been added to the geography of the Polar Regions by Captain Beechey's expedition.

Having waited in vain for the arrival of Captain Franklin until the 15th October, Captain Beechey relinquished all hopes of meeting him, and left Kotzebue's Sound, steering his course south. He afterwards visited the Sandwich Islands, China, and the Loo Choo Islands and other parts of the Pacific Ocean, returning to Behring's Strait and Kotzebue's Sound, agreeably to his instructions, in August 1827, again with the hope of meeting Captain Franklin and his party. The ship being anchored at Chamisso Island, Lieutenant Belcher was sent with the barge around Icy Cape, but hearing no tidings of Captain Franklin, he commenced his return, and the barge was afterwards wrecked on Choris Peninsula, when three of the crew perished in the sea. The remainder of the men were taken off by one of the ship's boats, which came to their relief. On the 6th October the Blossom weighed anchor and sailed from Kotzebue's Sound; Captain Beechey thus taking his final leave of Behring's Strait, after all hopes of the attainment of the principal object of the

expedition in the Polar Sea was at an end, and the fate of the party under Captain Franklin, which was of course then unknown to those on board of the Blossom, remained an object of intense interest. It was a consolation, however, to Captain Beechey and his officers, that their efforts to maintain their station in those seas had in both years, by the blessing of Providence, been successful, so that at no period of the appointed time of rendezvous could Captain Franklin have missed both the boat and the ship, or have arrived at the appointed place in Kotzebue's Sound without finding the anticipated relief. Captain Beechey is of opinion, "that could steam vessels, properly fitted and adapted to the service, arrive in good condition in Kotzebue's Sound by the beginning of summer, they might with care and patience succeed in reaching the western shore of Melville Peninsula in the next. There, however, they would undoubtedly be stopped, and have to encounter difficulties which had repulsed three of the most persevering attempts ever made toward the accomplishment of a similar object."

On his return home Captain Beechey passed Cape Horn on the 30th June, 1828, and after touching at Rio Janeiro, steered for England, where he arrived in the October following, in a passage of 49 days across the Atlantic.

In this voyage, which occupied three years and a half, he sailed 73,000 miles, and experienced every vicissitude of climate. Many objects of interest were accomplished by this brilliant expedition. Our voyagers surveyed al-

most every place at which the ship touched, and executed plans of fourteen harbours; of upwards of forty islands, of which six are discoveries; and of at least 600 miles of coasts, one fifth of which has not before been delineated. Much information was also obtained on the subject of natural history.

# NARRATIVE

OF THE

SECOND

# VOYAGE OF CAPTAIN ROSS

TO THE

**ARCTIC REGIONS,**

IN THE YEARS 1829-30-31-32-33.

COMPILED PRINCIPALLY

FROM THE EVIDENCE OF CAPTAIN ROSS, AND HIS NEPHEW,
COMMANDER ROSS, BEFORE THE COMMITTEE OF

THE HOUSE OF COMMONS.

## PREFACE.

THE following pages do not pretend to contain more than a faithful epitome of the evidence given before the Select Committee of the House of Commons, appointed to inquire into the circumstances of the expedition to the Arctic Seas, commanded by Captain Ross. The Committee was appointed on the 18th of March last, and after hearing the testimony of Captain Ross himself; Commander Ross, his nephew; Felix Booth, Esq.; the gentleman to whose truly national spirit we owe the expedition; Lord de Saumarez; Captain Francis Beaufort, Hydrographer to the Admiralty; Mr. Children, F. R. S., and E. S. Cayley, M. P., obtained leave, on the 28th of April, to report their observations to the house, together with the Minutes of Evidence taken before them.

It is from the Minutes of Evidence thus printed, that the following sketch has been prepared. Public curiosity has been very strongly excited to learn the result of this expedition, peculiar circumstances attending it having given

it additional interest. It is with the view of gratifying to some extent so reasonable a feeling, that this volume has been undertaken; not with any intention,—which indeed could not, even did it exist, be of avail,—of forestalling the more elaborate work which, it is understood, is at present in progress of preparation for the press, under the superintendence of Captain Ross himself.

If either the compiler or publisher of this volume for a moment anticipated that such would be the result of their labours, they would never have been undertaken; but this unpretending volume is presented as a preparatory whet to the more substantial banquet which, we doubt not, awaits the public in the forthcoming volumes of Captain Ross.

We have arranged all the information which could be extracted from the report of the House of Commons' Committee, adhering as much as possible to the language of the witnesses themselves. Our object, we repeat, has not been to anticipate the publication of the authentic account of the expedition, which may be expected from its enterprising commander; in order to enable whom to bring out his book in as complete a manner as possible, the Admiralty have allowed his nephew leave of absence, that he

may assist him in its compilation and arrangement. This, from the peculiar circumstances attending both the discovery of the magnetic pole, and the various expeditions on which he proceeded alone to explore portions of the newly discovered territory, he possesses greater means of accomplishing even than his uncle.

The compiler of this sketch (it does not purport to be more) does not anticipate any objections to the subject of his labours, or the manner in which he has treated it. Parliamentary documents, from one of which it has been to nearly its whole extent derived, are public property; as such, he has considered and dealt with the Report of the Committee of the House of Commons.

The importance of the inquiry as to the possibility of discovering a practicable north-west passage from the Eastern to the Western Ocean, is too well understood to require any statement in its favour. The subject has occupied the attention of this country for upwards of two centuries; and seems at present, with all the lights which recent expeditions have thrown on it, almost as far removed from solution as ever; not that the voyages of Parry, Franklin, and Ross, have not given negative testimony of a very strong kind against its existence. On

this point it will be seen that some difference of opinion exists between Captain and Commander Ross; and it must be confessed that the latter officer, from the great advantages of experience which he possesses, derived from the fact that he has accompanied every one of the recent voyages of discovery to the Arctic Regions, brings to his views a greater *à priori* foundation; but still his uncle states, as unquestionably proved by the labours of the last expedition, that no such passage as that so long sought for exists, at least south of the seventy-first degree of latitude. Another most important result from the voyage, is the discovery of the locality of the magnetic pole, which was determined by a series of observations and experiments, as far as we can judge, of the most conclusive kind.

We have been indebted for a small portion of our information to other sources than the Parliamentary Report; and have, in all instances, we believe, acknowledged them.

M.

*June*, 1834.

THE House of Commons' Committee consisted of the following gentlemen :—

Mr. Cutlar Fergusson
Sir Robert Peel
Sir Robert Inglis
Sir James Graham
Mr. Hutt
Mr. Aglionby
Mr. Chapman
Sir Henry Hardinge
Sir Edward Codrington
Mr. W. Gladstone
Mr. Ewart
Mr. Bannerman
Sir Andrew Agnew
Mr. Edward Stewart
Mr. G. Robinson
Mr. Warburton
Lord Dudley Stuart
Mr. Stuart Mackenzie
Mr. Fox Talbot
Mr. Brotherton
Mr. Emerson Tennant
Mr. G. F. Young
Mr. Hughes Hughes
Lord Viscount Sandon
Mr. Labouchere
Mr. O'Connell.

Of whom five were constituted a quorum.

# SECOND

## VOYAGE OF CAPTAIN ROSS

TO THE

# ARCTIC SEAS.

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BEFORE we commence the narrative of the circumstances attending the last voyage of Captain Ross, a slight notice of the naval career of that gentleman, in which we shall pursue as closely as possible his own modest account and in his own words, as delivered in his evidence before the House of Commons' Committee, will, we doubt not, be read with interest, and serve as a useful preliminary introduction to the story of the voyage itself. In this account, which we have thrown together as if told by a third person, we have varied very little from the language of the gallant and enterprising officer himself.

Captain John Ross entered the royal navy so long ago as the year 1786, nearly half a century since, at a time when he was of tender age, being only about ten years old. He continued in the service for four years, during which period he served on board two ships,—the Pearl and the Impregnable; he then left the royal navy for the merchant service, in which he remained until 1794, after which he was in the East India Company's employment until 1799; he then returned to the royal navy, and served in the ex-

pedition to the Texel in that year. His next appointment was as acting lieutenant of the Weasel, from which he went into the Clyde. He then served under Lord de Saumarez, but although often acting lieutenant, ranked only as a midshipman. He was under the orders of Lord de Saumarez from the year 1802 to the year 1812, and according to the testimony of that noble and gallant officer, "always acquitted himself highly to his satisfaction;" having been frequently engaged in services of an arduous nature during the period of ten years mentioned.

"In the Baltic," says Lord de Saumarez, (and such praise is the highest reward a naval officer could merit or receive—*laudari a laudato viro,*) "he was frequently engaged in active services; I had such high confidence in him, that when I took the Swedish fleet under my orders, I sent him on board the admiral's ship to interpret the British signals and evolutions that took place, and he acquitted himself very highly to my satisfaction; on every occasion that presented itself he acquitted himself with the utmost zeal and merit."

Captain Ross commanded several vessels during the period he was under the orders of Lord de Saumarez, and was confirmed a lieutenant in 1805; after this he was first lieutenant of the Surinam and Penelope; he subsequently held the same appointment on board the Diomede, and was Lord de Saumarez's first lieutenant in the Victory. His gallant superior gave him his next promotion as commander in 1809, and

afterwards intrusted to him the command of his majesty's ship Ariel. The scientific skill of Commander Ross was so highly appreciated by the Swedish government, that the Swedish king conferred upon him the Order of the Sword. As a navigator in the Gulf of Finland, where he was employed during one whole summer, he became very well acquainted with the coast, and in every part of the Baltic (we are again adopting the words of Lord de Saumarez) he displayed very great zeal and activity in making himself acquainted with the navigation of those seas.

The last question put by the committee to the noble and gallant lord, is as follows:

"399. Does not your lordship consider that this expedition has been of great advantage to the navigation of the Arctic Seas?"

"I should deem it to be of very great importance," is the reply.

The event, however, which first directed the attention of Captain Ross to those regions in the Arctic Sea, which are the subject of our present volume, was his appointment, in 1817, to the command of the expedition then fitted out to the Arctic Regions on a voyage of discovery, from which he returned in 1818. For his efficient discharge of the duties which devolved upon him during this expedition, he was promoted in December of that year to the rank of post captain.

In addition to this brief narrative of the previous services of Captain Ross, we have only to add, that he was employed in surveying the White Sea, and determined the longitude of Bear or Cherry Island; that he was several

times engaged in boat actions, and destroyed a gun brig in the bay of Dilutte. He was wounded in thirteen different places, had both his legs broken, received a bayonet through the body, and five sabre cuts in his head, for which he now enjoys a well-merited pension of a hundred and fifty pounds a year.

It will be seen at once from this statement, that all the qualities essential for the successful issue of a voyage of discovery to such a climate and country as the scene of his labours in the northern regions, are possessed by the subject of our memoir in a very high degree.

In the former expedition of 1818, Captain Ross's track, as exhibited in the map published by order of the House of Commons, and accompanying its report, was through Davis' Straits, a little to the west of Cape Desolation on the coast of Greenland: his course thence continued northward, with very little deviation from a straight line by Baal's river to Cape Chidley, and by Discovery Island; thence, skirting along the coast of Greenland by Buchan Island and Prince Regent's Bay, to very nearly as far north as Sir Thomas Smith's Sound—the most northern point he gained being between latitude 77 deg. and 78 deg., a small group of islands a little south of Sir Thomas Smith's Sound. His way was then across the northwest point of Baffin's Bay to James's Sound, thence he directed his course south to the Lancaster Sound, by which subsequently, in 1822, Cpatain Parry penetrated as far as Melville Island. The rest of the voyage was by the western coast of Baffin's Bay and

Davis's Straits. The only two voyages in which a higher degree of north latitude was obtained than during that of 1818, was by Captain Buchan, in the same year, who penetrated as far as latitude 80 deg., a little north-west of Spitzbergen; and that of Captain Parry, in 1827, who proceeded nearly two degrees farther north in the same region, and very nearly in the same part of it, as laid down in the most authentic maps.

Captain Ross, like a true seaman, was nothing daunted by the result of his first expedition, and of those subsequently made up to the period when he was enabled to accomplish his object. To use his own words, he considered that the government had abandoned the project at the very time when they ought to have proceeded with it; and that they had also taken, in his opinion, the wrong way of doing it, by employing in the former attempts at the wished-for discovery, vessels that were not at all fit for the service. He, therefore, full of these rational impressions, resulting from the former experience he had obtained, made a proposal to our government in 1827, to effect the objects he and they in common had in view. This proposal was, that the voyage should be undertaken in a steam-vessel; and as a proof of the earnestness with which he embraced this new view, he applied himself for a considerable time to the study of the question of steam navigation generally; with the view also of furthering his object, he wrote a treatise on the subject. The government views, however, did not coincide with

those he entertained, and they declined acceding to his proposals.

With a praiseworthy perseverance, indicating the sense he entertained of the soundness of his own views, he made a second application to the Admiralty at the time when his present Majesty received from Mr. Canning's administration the appointment of Lord High Admiral. It is said the Royal Duke was inclined to encourage the project, but his council advised otherwise, and the same want of success marked the application. A third time Captain Ross applied to the same quarter after the reappointment of Viscount Melville to the post of Chief Lord of the Admiralty, and a third time he was unsuccessful; the board, on this occasion, declaring that as a government measure it was altogether useless to urge it any more, as it must in that light at least be considered abandoned. About this time it was rumoured and believed that the Americans had resolved on taking up the expedition themselves, with the view of working out the problem still left unsolved of a north-west passage. The impression on Captain Ross's mind when this rumour met his ears may be learned from his own words. "I thought," says he, "that this country should be the people to discover the passage, if there was any, or to decide the question." The Americans, however, abandoned the preparations which had, beyond doubt, been commenced for the purpose. Their plan, if they had fitted out the intended expedition, was to proceed by Behring's Straits, beyond the track of Captain Beechey in 1825 and 1828.

Defeated thus in all his attempts to obtain aid from the government, Captain Ross had recourse to his private friends. The first to whom he applied was Felix Booth, Esq., to whom, although, in the first instance, from a most praiseworthy motive, to be explained presently, he declined taking part in the preparations for the voyage, the public is mainly if not wholly indebted that it was at all undertaken. We cannot, in justice to this high-spirited gentleman, forbear from quoting the following passage of the Report of the House of Commons' Committee, in reference to his highly disinterested conduct.

"To Mr. Felix Booth, to whose modest public spirit and rare munificence this expedition is entirely due, your Committee regret that they have it not in their power to propose some fit token of acknowledgment; but they cannot forbear offering the tribute of their admiration and respect."

Disappointed in the first instance in the result of his application to Mr. Booth, Captain Ross went to another friend, Mr. Thornton, of Old Swan, a gentleman who is well known as a speculative man. He told him in the first instance that the affair was to be kept a secret, as it was proper that, being a king's officer, he should be himself the first person to make it known to the Admiralty. Nothing, however, beyond a series of conversations on the subject resulted from the application to Mr. Thornton. In the meanwhile, an event occurred which removed all the objections entertained by Mr. Booth to having any share in the expedition,—a

bill was brought into Parliament, which virtually did away with the reward, by doing away with the board of longitude.

Mr. Booth's objection, in the first instance, was that there had been offered a reward of £20,000 for the discovery of the north-west passage; and he felt that many persons, ignorant of the real causes which prompted him, would have attributed his coming forward to motives of private speculation. He had been acquainted with Captain Ross for some time previously, and—but it is better we should give the explanation of his motives, &c., in his own simple language.

"I had known Captain Ross," is his reply to question 448, "for some years, and I undertook the charge of the enterprise which he commanded, for the credit of the country, and to serve Captain Ross, thinking that he had been slighted in the former expedition, and on account of ill-natured reports which were circulated anonymously against him. I conceived that there was a cloud hung over him, and he was anxious to have the opportunity of going out again. The first time he applied to me we were looking over the globe, and he was explaining to me what he had done before; I felt interested that all discoveries should be made by our countrymen; and I really was then excited and was sorry that another expedition was not appointed to go out to explore the northern regions. He said he should like very much to have the opportunity of going out again, but that government would not send out another expedition. I

said I regretted very much, if that was the case; but did he know it for a certainty? and he said, Not exactly, but I will endeavour to ascertain. He then, I believe, had some private communication with Lord Melville, whether it was thought they should do so or not (this was in the year 1827, I think,) and Lord Melville said 'there was no intention, at present, of sending out any further expeditions, but he could not say what they might do hereafter.' Captain Ross then said 'I should like very much to go out again, and I think I could do it at a small expense.' I said, 'Well then, put down, and let me see what you call a small expense.' He afterwards brought me a paper containing his calculation, making it about £10,000. I said, 'Well, I should have no objection to advance £10,000, if that would be the utmost sum required; but I said 'I will not engage in it, because there is £20,000 reward for any person who shall discover the passage, and it would look very much as though I had an object in view.' I think it was a twelvemonth after, that he came to me and said, 'Now it is all over, and the reward of £20,000 is done away with, and there is no chance of an expedition going out again.' I then said to him 'I am glad of it, and that if he wanted me to assist him I was willing to do so.' He was amazingly delighted, on which I told him, 'I will assist you, it must be in the utmost confidence, and I will not do anything inimical to government.' I asked him how we could find out whether that would meet their approbation, unless he were to mention the whole circum-

stances; and I said 'I shall not do anything, unless it is kept a profound secret.' He then informed me that Lord Melville was his friend, and that he thought he could mention it to him in confidence, and ask him whether there could be any objection to a private individual fitting out such an expedition. Lord Melville's answer was, that he could not see any objection, and that if there were any small things lying at Woolwich, from the former expedition, that would be of service to him, he should very much like to forward his views."

This was noble conduct, noble in the motive which prompted the first refusal, equally so throughout the whole transaction, and it will go down to posterity as a proof of the magnificent liberality of a British merchant, that what the government of the country, with the ample funds and other "appliances to boot," at its disposal, refused to embark in, was successfully carried forward by the public spirit and disinterested munificence of an individual. Such instances, it is true, are rare, but we should on that very account, only prize them the more.

This sum of £10,000, however, was not the whole extent of the services bestowed by Mr. Booth upon the cause of science and maritime discovery. The whole expense to which he was put in fitting out the expedition, and in the after-charges which it entailed upon him, was between £18,000 and £19,000. It was at first suggested that there should be two ships, and accordingly two were fitted out, the *Victory* and the *John*. The crew of the latter vessel, however, mutinied,

in consequence of the great delay that had occurred in getting ready for sea, and the other vessel ultimately sailed without her. The proceeds from the sale of the *John* amounted to £1800. During the absence of this expedition, Mr. Booth maintained the men's wives, and expended about £380, which latter sum, however, has been stopped since their return, from the men, out of the payment made by order of the government.

Mr. Booth properly nominated Captain Ross sole commander of the expedition; with, of course, liberty to appoint whom he pleased under him; the only stipulation he made being that they should be persons likely to be of service. Captain Ross agreed himself to serve without any pay, as well as his nephew, Commander James Clarke Ross, of the Royal Navy, who went out as second in command; and Mr. William Thom, also of the Royal Navy, who was formerly with Captain Ross in the *Isabella*, and who went out now with him as the third in command, and besides took charge of the meteorological journal.

Captain Ross, thus left at liberty to choose whom he pleased to accompany him, received gratuitous offers of zealous service and assistance, in any capacity, from two distinguished officers, Captain Back and Captain Hoppner, offers equally creditable to Captain Ross and to those who made them. Captain Back's offer was made in Parliament-street, where he met Captain Ross walking with his nephew, when he said, "Will you take me on any terms; I will go as draftsman,

or anything you choose to make me." Captain Hoppner made a similar offer, verbally at first, and subsequently in writing. The following is a copy of Captain Hoppner's letter, with the reply of Captain Ross:

"My Dear Sir,—As I feel so much interested in your noble enterprise, I cannot help expressing myself more explicitly on the subject next my heart. If you will accept of my services, I am ready to go with you in *any capacity*, and will make over all I am worth in the world for the advancement of your object. I promise you most implicit obedience; and will never offer an opinion, unless required. Be assured of my devotion to the great and noble undertaking, and

"Believe me,

"Your very humble Servant,

"H. P. Hoppner.

"*R. N. Club, Bond Street,*
"*Saturday, March 21st.*

"P.S. There is no occupation so lowly that I will not undertake."

REPLY.

"160, *Bond Street,*
"*23rd March,* 1829.

"My Dear Sir,—I return you my warmest

thanks for the handsome manner in which you have volunteered your services; but my arrangements are finally made; and I regret that it is therefore out of my power to accept them. I am grateful for your kind wishes of success; and I pray you to believe me very truly,

"Yours,

"JOHN ROSS.

"*To Captain Hoppner, R. N.*"

Captain Ross, however, naturally enough preferred, even to this most disinterested offer, that his own nephew should accompany him. He then at once, all the preliminary arrangements having been made, proceeded to Liverpool, where he purchased the *Victory*, which was fitted up with engines of peculiar construction, so made as to take up the least possible space. Some more time was spent in the preparations; and at length, on Saturday, the 23d of May, 1829, the *Victory* sailed from Woolwich, on its voyage to the North Seas.

The following are the names of the crew of the Victory, as she left this country:—

CAPTAIN JOHN ROSS, *first in command.*
COMMANDER JAMES CLARKE ROSS, *second in command.*
MR. THOM, *Purser, third in command, and in charge of the meteorological journal.*
MR. GEORGE M'DIARMID, *Surgeon.*

WILLIAM LIGHT, *Steward.*
THOMAS BLANKY, *Mate.*
RICHARD WALL, *Seaman.*
ANTHONY BUCK, *Ditto.*
ALLAN M'INNES, *Second engineer.*
JAMES MARSLIN, *Armourer.*
JOHN PARK, *Seaman.*
JOSEPH CURTIS, *Ditto.*
JOHN WOOD, *Ditto.*
ROBERT SHREWE, *Carpenter's Mate.*
HENRY AYRE, *Cook.*
THOMAS ABERNETHIE, *Mate.*
CHIMHAM THOMAS, *Carpenter.*
GEORGE TAYLOR, *Mate.*
ALEXANDER BRUNTON, *First engineer.*
BARNEY LACKEY, *Landman.*
DAVID WOOD, *Seaman.*
JAMES DIXON, *Landman.*
GEORGE BAXTER, *Ditto.*

Before we proceed to give a summary of the evidence of the gallant navigator and his companions, we give the following letter, written by Captain Ross to Captain the Hon. George Elliott, C. B., chief secretary to the Admiralty, and dated on board the *Isabella* of Hull, Baffin's Bay, September, 1833.

" *On board the Isabella of Hull,*
*Baffin's Bay, September,* 1833.

" SIR—Knowing how deeply my Lords Commissioners of the Admiralty are interested in the advancement of natural knowledge, and particularly in the improvement of geography, I have to acquaint you, for the information of their

Lordships, that the expedition, the main object of which is to solve, if possible, the question of a N.W. passage from the Atlantic to the Pacific Ocean, particularly by Prince Regent's Inlet, and which sailed from England in May, 1829, notwithstanding the loss of the foremast, and other untoward circumstances which obliged the vessel to refit in Greenland, reached the beach on which His Majesty's late ship Fury's stores were landed, on the 13th of August.

"We found the boats, provisions, &c., in excellent condition, but no vestige of the wreck. After completing our fuel and other necessaries, we sailed on the 14th, and on the following morning rounded Cape Garry, where our new discoveries commenced, and keeping the western shore close on board, ran down the coast in a S.W. by W. course, in from ten to twenty fathoms, until we had passed the lat. of 72 deg. N., in long. 94 deg W.; here we found a considerable inlet leading to the westward, the examination of which occupied two days; at this place we were first seriously obstructed by ice, which was now sure (seen) to extend from the South Cape of the inlet in a solid mass round by S. and E. to E.N.E. Owing to this circumstance, the shallowness of the water, the rapidity of the tide, the tempestuous weather, the irregularity of the coast, and the numerous inlets and rocks for which it is remarkable, our progress was no less dangerous than tedious; yet we succeeded in penetrating into the lat. of 70 deg. N. in long. 92 deg. W., when the land, after having carried us as far E. as 90 deg.,

took a decided westerly direction; while land, at the distance of forty miles to southward, was seen trending east and west. At this extreme point our progress was arrested, on the 1st of October, by an impenetrable barrier of ice. We, however, found an excellent wintering port, which we named Felix Harbour.

"Early in January, 1830, we had the good fortune to establish a friendly intercourse with a most interesting association of natives, who being insulated by nature, had never before communicated with strangers: from them we gradually obtained the important information that we had already seen the continent of America; that, about forty miles to the S.W. there were two great seas, one to the west, which was divided from that to the east by a narrow strait or neck of land. The verification of this intelligence, either way, on which our future operations so materially depended, devolved on Commander Ross, who volunteered his service early in April, and accompanied by one of the mates, and guided by two of the natives, proceeded to the spot, and found that the north land was connected to the south by two ridges of high land, fifteen miles in breadth; but taking into account a chain of fresh water lakes which occupied the valleys between, the dry land, which actually separates the two oceans, is only five miles. This extraordinary isthmus was subsequently visited by myself, when Commander Ross proceeded minutely to survey the sea coast to the southward of the isthmus, leading to the westward, which he succeeded in

tracing to the 99 deg., or to 150 miles of Cape Turnagain of Franklin, to which point the land after leading him into the 70 deg. of N. lat. trended directly: during the same journey he also surveyed 30 miles of the adjacent coast, or that to the north of the isthmus, which, by also taking a westerly direction, formed the termination of the western sea into a gulf. The rest of this season was employed in tracing the sea coast of the isthmus leading to the eastward, which was done so as to leave no doubt that it joined, as the natives had previously informed us, to Ackullee and the land forming Repulse Bay. It was also determined that there was no passage to the westward for thirty miles to the northward of our position.

"This summer, like that of 1818, was beautifully fine, but extremely unfavourable for navigation; and our object being now to try a more northern latitude, we waited with anxiety for the disruption of the ice, but in vain, and our utmost endeavours did not succeed in retracing our steps more than five miles; and it was not until the middle of November that we succeeded in cutting the vessel into a place of security, which we named "Sheriff's Harbour." I may here mention that we named the newly discovered continent to the southward, "Boothia," as also the isthmus, the peninsula to the north, and the eastern sea, after my worthy friend, Felix Booth, Esq., the truly patriotic citizen of London, who in the most disinterested manner enabled me to equip this expedition in a superior style.

"The last winter was in temperature nearly equal to the *mean* of what had been experienced on the four preceding voyages; but the winters of 1830 and 1831 set in with a degree of violence hitherto beyond record, the thermometer sunk to 92 deg. below the freezing point, and the average of the year was 10 deg. below the preceding; but notwithstanding the severity of the summer, we travelled across the country to the west sea, by a chain of lakes, thirty miles north of the isthmus, when Commander Ross succeeded in surveying fifty miles more of the coast leading to the north-west; and by tracing this shore to the northward of our position, it was also fully proved that there could be no passage below the 71st degree.

"This autumn we succeeded in getting the vessel only fourteen miles to the northward, and as we had not doubled the Eastern Cape, all hopes of saving the ship were at an end, and put quite beyond possibility by another very severe winter; and having only provisions to last us to June, 1832, dispositions were accordingly made to leave the ship in her present port, which (after her) was named 'Victory Harbour.' Provisions and fuel being carried forward in the spring, we left the ship on the 29th of May, 1832, for Fury Beach, being the only chance left of saving our lives. Owing to the very rugged nature of the ice, we were obliged to keep either upon or close to the land, making the circuit of every bay, thus increasing our distance of two hundred miles by nearly one half, and it was not until the 1st of July that we

reached the beach, completely exhausted by hunger and fatigue.

"A hut was speedily constructed, and the boats, three of which had been washed off the beach, but providentially driven on shore again, were repaired during this month; but the unusual heavy appearance of the ice afforded us no cheering prospect until the 1st of August, when in three boats we reached the ill-fated spot where the Fury was first driven on shore; and it was not until the 1st of September we reached Leopold South Island, now established to be the north-east point of America, in lat. 93 deg. 56 min., and long. 70 deg. W. From the summit of the lofty mountain on the promontory, we could see Prince Regent's Inlet, Barrow's Strait, and Lancaster Sound, which presented one impenetrable mass of ice, just I had seen it in 1818; here we remained in a state of anxiety and suspense which may be easier imagined than described. All our attempts to push through were vain. At length, being forced by want of provisions, and the approach of a most severe winter, to return to Fury Beach, where alone there remained wherewith to sustain life, we arrived there on the 7th of October, after a most fatiguing and laborious march, having been obliged to leave our boats at Batty Bay. Our habitation, which consisted of a frame of spars, thirty-two feet by sixteen, covered with canvas, was, during the month of November, inclosed, and the roof covered with snow from four to seven feet thick, which being saturated with water when the temperature was 15 degrees

below zero, immediately took the consistency of ice, and thus we actually became the inhabitants of an iceberg during one of the most severe winters hitherto recorded; our sufferings, aggravated by want of bedding, clothing, and animal food, need not be dwelt upon. Mr. C. Thomas, the carpenter, was the only man who perished at the beach, but three others, besides one who had lost his foot, were reduced to the last stage of debility, and only thirteen of our number were able to carry provisions, in severe journeys of sixty-two miles each to Batty Bay. We left Fury Beach on the 8th of July, carrying with us three sick men, who were unable to walk, and in six days we reached the boats, where the sick daily recovered. Although the spring was mild, it was not until the 15th of August that we had any cheering prospect. A gale from the westward having suddenly opened a lane of water along shore, in two days we reached our former position, and from the mountain we had the satisfaction of seeing clear water almost directly across Prince Regent's Inlet, which we crossed on the 17th, and took shelter from a storm twelve miles to the eastward of Cape York. Next day, when the gale abated, we crossed Admiralty Inlet, and were detained six days on the coast by a strong north-east wind. On the 25th we crossed Navy Board Inlet; and on the following morning, to our inexpressible joy, we descried a ship in the offing, becalmed, which proved to be the *Isabella* of Hull, the same ship which I commanded in 1818: at noon we reached her, when her en-

terprising commander, who had in vain searched for us in Prince Regent's Inlet, after giving us three cheers, received us with every demonstration of kindness and hospitality which humanity could dictate. I ought to mention also, that Mr. Humphries, by landing me at Possession Bay, and subsequently on the west coast of Baffin's Bay, afforded me an excellent opportunity of concluding my survey, and of verifying my former chart of that coast.

"I have now the pleasing duty of calling the attention of their Lordships to the merits of Commander Ross, who was second in command in the direction of this expedition. The labours of this officer, who had the departments of astronomy, natural history, and surveying, will speak for themselves in language beyond the ability of my pen; but they will be duly appreciated by their lordships and the learned bodies of which he is a member, and who are already well acquainted with his acquirements.

"My steady and faithful friend, Mr. William Thom of the Royal Navy, who was formerly with me in the *Isabella*, besides his duty as third in command, took charge of the meteorological journal, the distribution and economy of provisions; and to his judicious plans and suggestions must be attributed the uncommon degree of health which our crew enjoyed; and as two out of three who died during the four and half years were cut off early in the voyage by diseases not peculiar to the climate, only one man can be said to have perished.

"Mr. M'Diarmid, the surgeon, who had been

several voyages to these regions, did justice to the high recommendation I received of him: he was successful in every amputation and operation which he performed, and wonderfully so in his treatment of the sick; and I have no hesitation in adding, that he would be an ornament to his Majesty's service.

"Commander Ross, Mr. Thom, and myself, have indeed been serving without pay, but in common with the crew have lost our all, which I regret the more, because it puts it totally out of my power to remunerate my fellow-sufferers, whose case I cannot but recommend for their lordships' consideration.

"We have, however, the consolation, that the results of this expedition have been conclusive, and to science highly important, and may be briefly comprehended in the following words: the discovery of the Gulf of Boothia, the Continent and Isthmus of Boothia Felix, and a vast number of islands, rivers, and lakes; the undeniable establishment that the north-eastern point of America extends to the 74th degree of north latitude; valuable observations of every kind, but particularly on the magnet; and, to crown all, we have had the honour of placing the illustrious name of our most gracious Sovereign William the Fourth on the true position of the magnetic pole.

"I cannot conclude this letter, sir, without acknowledging the important advantages we obtained from the valuable publications of Sir Edward Parry and Sir John Franklin, and the communications kindly made to us by those dis-

tinguished officers before our departure from England.

"But the glory of this enterprise is entirely due to HIM whose divine favour has been most especially manifested towards us, who guided and directed all our steps, who mercifully provided effectual means for our preservation, and who, even after the devices and inventions of man had utterly failed, crowned our humble endeavours with complete success.

"I have the honour to be, &c.,

"JOHN Ross, Captain, R. N."

This statement is truly modest, plain, simple, and affecting; and its assertions, according to the report of the Parliamentary Committee, are fully confirmed, as far as they have been examined, by the evidence which appeared before them; and is supported by the opinions of Captain Beaufort, hydrographer to the Admiralty; of Mr. Children, one of the secretaries of the Royal Society, and of Professor Barlow, who has made the magnetic variations his particular study.

The arrangement which Captain Ross originally entered into with the men who accompanied him, and whose names we have already given, was, that their engagement should be considered the same as if they were going on a whaling voyage, and thus to share with the crew of the whaler, (*The John,*) which he originaliy intended should accompany them to carry out their stores, provisions, and other necessary parts of the

equipment. However, after the mutiny of the whaler, in consequence of the alleged delay in getting ready for sea, he entered into a new arrangement with the men who ultimately did accompany him in the Victory. The terms of this second arrangement were, that the commander of the expedition was to pay them at the same rate he had done those who had formerly gone with him on board the Isabella in 1818. With this agreement they were to run all risks; and they having assented to these terms, the mutinous crew of the whaler did not proceed with them.

Captain Ross, in entering into this arrangement, and abandoning that part of his plan which contemplated his being accompanied by the whaler as a store-ship, felt that he was in some degree justified—and indeed as the event verified—in going in the Victory alone, as he knew that if they succeeded in reaching Prince Regent's Inlet, they would there find the stores belonging to the Fury. The men had originally signed articles for the first engagement, but when the second was entered into, so fully confident were they of the upright intentions of their superior, that that otherwise essential form was not deemed necessary.

Captain Ross brought out with him some most valuable instruments and books, which he stated before the Committee of the House of Commons cost him very nearly one thousand pounds. All of these, except his sextant, and one chronometer, he unfortunately lost during the progress of the expedition. His nephew, Com-

mander Ross, was equally unfortunate, having lost all his clothes, and the few instruments which he took out with him, these latter however, luckily were not of any great consequence. They all lost their clothes, and Mr. Thom's losses were very considerable, as he had with him an excellent as well as abundant stock of clothes.

The object of the expedition was to discover if there existed a passage, the North West, from one of the great seas, the Atlantic, the other, the Pacific. The researches and inquiries of those navigators and explorers who had preceded Captain Ross, were confined to the chance of discovering this desired passage by Prince Regent's Inlet, the entrance to which, near Cornwallis Island, lies in about 75 degrees latitude, and, as nearly as possible, 90 degrees of west longitude. Captain Ross had, in his expedition of 1818, gone as far in this direction as Lancaster Sound, in the same degree of latitude, but not within 10 degrees of the same longitude; while Captain Parry, in his expedition of 1824-5, had passed as far down Prince Regent's Inlet, as about 72 degrees latitude. That gentleman, at the close of the account of his first voyage, in 1819, writes as follows:—

"Of the existence of a North-west Passage to the Pacific, it is now scarcely possible to doubt; and from the success which attended our efforts in 1819, after passing through Sir James Lancaster's Sound, we were not unreasonable in anticipating its complete accomplishment. But the season in which it is practicable to navi-

gate the Polar Seas, does not exceed seven weeks. From all that we observed, it seems desirable that ships endeavouring to reach the Pacific Ocean by this route should keep, if possible, on the coast of America, and the lower in latitude that coast may be found, the more favourable will it prove for the purpose; hence, Cumberland Strait, Sir Thomas Powis, Welcome, and Repulse Bay, appear to be the points most worthy attention."

Most of these points, Captain Parry and others discovered to be impenetrable, the land being continuous in them all, and the only chance which remained of such a passage being in existence, at least in so low a latitude as in the 74th degree, has been set at rest by the expedition of which we are about to present the reader with the details.

Captain Ross, in his examination, says, "The reasons of the expedition, were of course, for the benefit of science, and to decide the question which had been agitated for the last two hundred years, and to decide also whether there was that passage to which Captain Parry and Captain Franklin directed their attention; and in that case it would have been found beneficial to the country, if there had been a passage in that direction, because it might be a navigable one. If it had been navigable, it might have been a benefit to the country; but no passage to the northward of the 74th degree can be of any use to the country; a passage to the northward of the 70th degree would be an advantage."

On the 23d of May, 1829, Captain Ross and

his adventurous crew left Woolwich. The steam power employed in his ship was of a wholly new principle, being so contrived as to combine every advantage of steam power with perfect capability as a sailing vessel. The boilers used, occupied so small a space, that they were fixed between the engines; the consumption of fuel was one-half, and the weight of the engines one-fourth of those generally in use. Another advantage which it enjoyed in its construction was, that a chimney could be dispensed with, leaving the deck, masts, and rigging, wholly unencumbered. So well was the secret of Mr. Booth preserved at the time, that not one of the newspapers adverted to his share in the expenses of fitting out the expedition, which they all united in stating, had been at the private cost of Captain Ross.

During the early part of the outward voyage the Victory lost her foremast, and other untoward circumstances occurring, they were obliged to put into Wideford on the Greenland coast to refit, on the east side of Davis's Straits. Finding thus early her machinery nearly useless, Captain Ross took steps to convert his steam ship into one of a character more suited to the regions in which he was proceeding. He accordingly equipped it as a sailing vessel, partly from the resources he had brought out from England, and partly from the materials of a London whaler which he found abandoned on that part of the coast.

On the 27th of July, 1829, he was enabled to leave this place, and his doing so was the last

account heard in Europe of the adventurous navigator and his daring and gallant crew, until they were discovered four years afterwards by the Isabella.

The voyage out, during the autumn of 1829, was one of the most prosperous on record among these seas. The weather was unusually mild, and the sea less blocked up with those floating continents of ice which had been the principal impediment on all similar experiments previously made, than had been the case in any previous expedition.

The Victory pursued its voyage up Baffin's Bay into Lancaster Sound, (laid down in the maps of Captain Parry as Barrow's Straits,) making as directly as possible for Prince Regent's Inlet to the spot where the wreck of the Fury had been abandoned by Captain Parry. This point is in latitude 72 deg. 41 min. 30 sec., and in longitude, by the chronometrical observations of Captain Parry, 91 deg. 50 min. 05 sec. The dip of the magnetic needle was 88 deg. 19 min. 22 sec. and the variation 129 deg. 25 min. westerly.

He reached the spot indicated by Captain Parry on the 13th of August, in which month, at a later period, exactly four years before, the Fury had been abandoned by that officer.

Captain Ross was fortunate enough to find here the keel of that ship, the only part which, after a lapse of four years, remained of the Fury. He landed without difficulty on the indicated spot, and was of course much pleased to find that he had not only accurately reached

the precise spot, but to discover that the stores which had been left by his predecessor in those seas were as he had reason to suppose them. Some of the timbers of the Fury were also found in the immediate vicinity of the place, and these afforded most seasonable relief.

On the 14th of August, having supplied all his wants from the stores of the Fury, he advanced to the southward in Prince Regent's Inlet, as far as Cape Garry, a headland near the spot where the Fury lay, and so named by Captain Parry during the voyage of 1825, after his friend Nicholas Garry, Esq., one of the most active members of the Hudson's Bay Company.

From this point the west coast led him as far as lat. 72 deg. north, where the first serious impediment from the vast masses of ice was encountered.

In his passage down Prince Regent's Inlet, he occasionally landed to take possession, after the manner customary on those occasions, of the newly discovered territory in the name of the King of Great Britain.

Owing to the rapidity of the tides in this inlet, which is of small width, and consequently difficult on that account of navigation, as well as the currents, which, from the same cause, are extremely violent, the voyage through this passage was one of great peril. The coast besides is of a rocky character; but through the great skill of Commander Ross, to whom this part of the expedition was very properly intrust-

ed by his uncle, no danger greater than the usual sea risks was encountered.

From the perils of a voyage of this description, which more than once threatened to terminate fatally, they ultimately obtained a temporary escape by reaching 72 deg. of north latitude, and 94 deg. of west longitude, nearly due south of Fury Point, when their course was finally arrested by an immense and impenetrable barrier of ice. There, in a harbour at this extreme point, they passed their first winter.

This whole district abounds in furs of a valuable description, and when it becomes better known, the traffic with the natives cannot but prove highly advantageous to the Hudson's Bay Company.

They penetrated as far as the latitude of 70 deg. north, and west longitude 92 deg., when the land, after carrying them as far east as 90 deg., took a westerly direction. The ice stopped them here on the 1st of October.

In January of the ensuing year, 1830, they opened a communication with a tribe of natives who had previously never been visited by strangers.

These natives, with whom they had considerable intercourse, are described by Captain Ross as possessing a primitive character for simplicity of manners, which, at the present day, it is almost vain to hope to find in any of the regions visited by our English navigators. They are mild and inoffensive in their manners, living in harmony with each other, and treating

their children with extreme kindness and attention.

From these simple and primitive Esquimaux they learned, in the progress of the intercourse which grew up between them, that the east sea, or Atlantic, was divided from the west, the Pacific, only by a neck of land; and as they stated this with great confidence, as if apparently the result of acquired and almost daily observation, Captain Ross determined on sending an expedition to ascertain the point.

Commander Ross was accordingly sent to ascertain this point; and both then, and during the subsequent exploring visits he made while there, was accompanied generally by four or five men. The number of times he went he himself states, in his testimony before the Committee, to have been five or six, and that the greatest length of time at any one period was about a month. On two occasions he was about that period away; at others about ten days or a fortnight.

Commander Ross states that the whole crew together discovered about two hundred miles of coast in the ship. This was exclusive of what had already been discovered and surveyed by Captain Sir Edward Parry during his third and final voyage. They went down Regent's Inlet till they came to the wreck of the Fury. The spot where this ship had been left by their predecessor was about a hundred miles to the southward of the north-eastern point of America, and they went down in the ship full two hundred miles beyond the wreck.

Captain Ross's letter to the Lords of the Admiralty, already given, states the result of his nephew's expedition to ascertain this point.

While here, the great object seems to have been the taking of meteorological observations; these comprised the direction of the wind, its force, the state of the weather, and the height of the thermometer every hour for three years at nearly the same spot, which certainly supplies a great desideratum, as by its means the temperature of their locality may be compared with those of other parts of the globe. In order to direct his attention to this particular object and observations, Captain Ross states that he had had, before he left England, some correspondence with scientific men, particularly from the then president of the Royal Society, Davies Gilbert, esq., and another gentleman well known in the scientific world for his observations, productions, and discoveries, Sir David Brewster.

Mr. Thom had principally the meteorological journal in charge; the men stationed to watch, having been taught to look regularly at the thermometer every hour, to note the wind, its direction and force, as already mentioned, and also the state of the weather; and these they inserted in a log-book, kept for that purpose, every hour during the period of three years which they remained there.

The lowest point at which the thermometer ever stood, during the period their stay here embraced, was sixty degrees and a half below zero, which is ninety-two and a half below the freezing point of Fahrenheit. This was in

January, 1831. It was very seldom so low as that; it had been frequently as low as eighty degrees below the freezing point, but never except once, for a few days, so low as ninety. They often however had eighty-five; at this time there was no wind.

In all former attempts to live under such an extreme degree of cold, death was the result; as the melancholy cases of Sir Hugh Willoughby's crew, who all perished and were found dead in their hut; and the party of sailors at Spitzbergen, who were likewise all found dead with cold, but too well attest.

Captain Ross attributes the preservation of his party from the fatal effects of cold, to the method they took of ventilating their hut and covering it with ice. They were also without spirits for the latter fifteen months of the voyage, and he attributes to this fact a considerable portion of the healthy state in which the party were. They had also some cocoa during the greatest part of the time, but latterly the allowance was extremely limited, and for the last six months they remained, it was wholly exhausted. They had some coffee made of burnt peas.

The letter written by Captain Ross, which we have already given, does not go much into detail; but still it presents the main features of the proceedings of the expedition during the period of its absence. The Committee of the House of Commons, as will be perceived, did not press the gallant officer who commanded it, to disclose, during the progress of his examination before them, more of those details than he

seemed willing to afford them. We are therefore left somewhat in the dark on many points of great interest, but enough remains to render our narrative not only clear, but tolerably precise as to the great features of the events which took place during their residence in the inhospitable region, where they were so long ice-bound; and also to afford a distinct idea of the nature and extent of the discoveries they actually made.

It was not at all unreasonable to expect that Captain Ross should have been, to some extent, jealous of giving more information than was absolutely necessary to justify his claim to any reward which the Committee might think him fairly entitled to for the discoveries made. Offers of considerable sums of money have, it appears, been made to his nephew, for the use of his notes and papers; but with a highly creditable feeling of deference to his relation, he seems to have resolutely resisted all such temptations.

We copy from the printed Report of the Examination:—

"41. The Committee have read a letter, addressed to the Admiralty, from on board the *Isabella*, which gives a general statement of what took place during your last expedition; is it your wish to have that entered as your statement?—That will do well enough: I can explain the scientific effect of the discovery of the magnetic pole."

"42. But the general narrative of those four years and a half, you consider quite sufficient in that statement?—Yes."

The effects of the discovery of the magnetic pole, the gallant officer then proceeds to state. They were, he says, when near the magnetic pole, in a position where the horizontal compass had no power of traversing to any particular point. The longitude where this curious phenomenon was observed, has not been ascertained with the precision which its importance to purposes both of science and commercial utility would require; but it is stated to be, as nearly as they could make out, about 96 deg. 47 min. of west longitude. Captain Parry, it seems, suggested its probable position.

Captain Ross states, that it was within about thirty leagues of the spot which Captain Parry supposed probable. When the compass was placed on the spot where the *locale* of the magnetic pole is situate, the power of attraction was at right angles to the needle, and of course its power of turning in either direction horizontally was completely lost.

We shall pursue Captain Ross's statement in reference to the magnetic pole, in order not to break in on the continuity of his narrative. In answer to a series of questions from various members of the Committee, he states that one of the most important results which their being at the pole enabled them to arrive at, was observing the effects of various agents on the needle itself. The points which thus came under observation were the effect which light, heat, and all other combinations that may form part of the magnetic influence, when in conjunction with that influence, had upon the needle, when

at liberty to act upon it without such conjunction. One of the most curious of these observations was that when the sun went round, they saw the magnetic needle following it, realizing the poetical illustration of the sunflower, and the god whom it is supposed to worship, turning to where he sets with

"The same look that she turned when he rose."

This fact at once established, what had been a desideratum in science, that the sun does not possess an influence on the magnet, or that its heat and light partake in the mysterious agency which makes the mariner's safety. The light of a candle had also an effect in a very diminished degree upon the magnet. There can be no doubt that these facts establish a matter of considerable importance to science, inasmuch as they infallibly demonstrate the connexion between light and heat and magnetism. Metallic substances also produced some impression here on the magnet; the brass buttons of the coat attracting the north point of the needle towards them.

The position of the magnetic pole had, it appears, been decided at the time when these phenomena were observed, by previous observations. They had by a series of such observations determined that they were within a very short distance, at the spot where the ship lay imbedded in the ice, from the magnetic pole; and by continuing their observations, and remarking the variations as they were successively indicated, they arrived on the very spot. Before they reached it, they were at a variation of 90

deg. westerly, having previously to that been twice that extent of variation, viz. 180 deg. They passed round the spot where the magnetic pole exists, and whichever way they passed as they went round it, the compass turned towards it horizontally; and when they were to the north or south of it, they turned a variation of 180 deg.; when they were east or west, their variation was exactly 90 deg. This increased by degrees as they proceeded round it, and the observations were made with instruments of the nicest accuracy, and most delicate construction, being hung on hairs; some of them were constructed by Dollond for the express purpose of taking these and other observations made during the progress of the expedition.

The Committee then, in order to establish the claim, undisputed and undivided, of Captain Ross to this important discovery, and to show that, although two of the adventurous English seamen who had preceded him in these seas, had *guessed* with a tolerable degree of accuracy at the position of the magnetic pole, still they had not made the actual discovery, put the following questions:—

"55. Although Captain Parry never arrived at the point of the magnetic pole, is it not the case that he had ascertained its situation by experiments that he had made?—Certainly not (is Captain Ross's answer.) Captain Parry is as much on the one side as Captain Franklin was on the other; and it is an extraordinary fact, the mean between the two comes within a short distance of the actual spot.

"56. Does Captain Parry state in any part of his despatches to the Admiralty, or in his work, that he discovered the magnetic pole?—No.

"57. He lays no claim to it?—No; he only stated the supposed position of it, which turned out to be a hundred miles erroneous.

"58. Within what area do you conceive you have reduced the situation of it?—One mile."

Subsequently, in the progress of his examination, Captain Ross stated on this point, that the actual position of the magnetic pole was taken by observations by Commander Ross, who reported to his uncle, that he had reached the actual spot. This fully accorded with the Captain's own observations at the ship, and at several other places at a short distance from the position where his nephew laid it down. He is asked:—

"233. Are the Committee to understand, that at several particular spots, that particular position of the magnetic needle took place, which authorizes you to assert such spot or spots to be the true position of the magnetic pole; in other words, did the needle dip perpendicularly at more than one spot, and if at more than one, what was the distance between any one and any other?"

To which his answer is,—

"The needle dips more at the exact spot where the magnetic pole was found, than at any other spot."

"234. What was the area?—I think within a mile; but all these things are going through a

Committee; there is a Committee of scientific calculations; there is a spherical calculation by scientific people on shore, which will make the necessary allowances for the spherical figure of the earth."

This spot, where the true magnetic pole was discovered, was first named after the Duke of Clarence; but the day after the arrival of Captain Ross in London, he waited on his Majesty, at Windsor, and received the Royal permission to change the name to that of "King William."

It was not, however, Captain Ross who himself visited this spot; that duty devolved upon his nephew, who planned and executed the voyages of discovery made from the spot where their ship lay imbedded in the ice. This gentleman states the whole extent of geographical discovery to be perhaps between six or seven hundred miles of new land; and out of that six or seven hundred miles, probably about two hundred miles were discovered by the whole expedition in the ship; the remaining four or five hundred miles were discovered and explored by himself, in the conduct of parties detached from the ship, which were all planned and carried on under his separate guidance and control; Captain Ross not accompanying him in their progress. From the personal observations which Commander Ross had been making during the two years he was ice-bound in the Victory, he inferred that he had discovered the true position of the north magnetic pole. The nature of those observations was directed to the

determination of its exact position ; and having by these means ascertained and determined the precise spot, he then conducted a party of the crew to the spot so determined on, and there made a series of observations by which he ascertained the correctness of the calculations made from his previous observations, and that he had reached the true site of the magnetic pole. These observations have since been communicated to the Royal Society, who immediately directed that they should be printed in the Philosophical Transactions.

Captain Charles Beaufort, R. N., who was himself employed by the Admiralty, in a voyage of observation to the Arctic Seas, states as his opinion, founded rather however on general belief, than any certain data, that the magnetic pole is a revolving point, but that he could not say in what direction. He adds, when asked whether he has any reason to believe that Captain Ross discovered, or that he approached the temporary position of the magnetic pole during this voyage ? that his opinion is, from what Captain Ross says, that he appears to have been very near it ; and that his observations very nearly agree with those of Captain Franklin and Captain Parry, in their previous voyages : that they all point to about the same place, but he much nearer to it than his predecessors. He afterwards strengthens this statement by declaring that he thinks either he or his nephew approached close to it, from the description they give of their observations.

" Did he," asks a member of the Committee,

(258,) "fix the situation of the magnetic pole with greater accuracy than had been previously done by others?—I think whoever approached nearest to it may be considered to have the best claim to that honour; but there can be no specific or precise point within a degree or half a degree; like the point of a needle, its exact position must be involved in doubt, even with the most accurate observation, and can be determined only by observing the direction of the needle at several different points around it."

Mr. Children, one of the Secretaries of the Royal Society, however, in his answers, appears to be not quite so niggard of the praise which he thinks the discovery of the magnetic pole demands. It is his opinion, from what he knows of Captain Ross's discoveries during this voyage, that the expedition has been productive of important advantages to science. His own words are: "I think it has been productive of important advantage to science, by Commander Ross's having clearly ascertained the position of the north magnetic pole: I think that there is a singular coincidence in the spot which he has determined by experiments to be the true position of the north magnetic pole, and that inferred from philosophical considerations by Professor Barlow. Professor Barlow published a paper in the last Philosophical Transactions, on magnetic lines of equal variation; at the conclusion of that paper he says, that to which I will beg the attention of the Committee, it will perhaps put in a stronger light the importance of that discovery than any thing I can say. It

is a postscript to Mr. Barlow's paper on the present situation of the magnetic lines of equal variation: it is dated November 18, 1833:—'Since this paper was read, and the globe and chart referred to in this article were drawn, Captain Ross has returned from his long and adventurous voyage. It will be seen by a reference to the Polar Chart, that although I was enabled to lay down the curves of equal variation to within a few degrees of their point of concurrence, yet they are all terminated before arriving at it, for want of sufficient data. These are now supplied; and it is very gratifying to me, as I hope it may be also to Captain Ross and to Commander James Ross, to find that the very spot in which they have found the needle perpendicular—that is, the pole itself—is precisely that point on my globe and chart in which, by supposing all the lines to meet, the several curves would best preserve their unity of character, both separately and conjointly, as a system.' The importance, as it strikes me," continues Mr. Children, "of their coincidence, is this: it is clearly of very great importance to navigation to know what the variation of the needle is in every part, and the lines of equal variation which Professor Barlow has laid down, will be in that respect extremely important if they are true; their coincidence with the actual observations of Commander James Ross must necessarily give a great confidence in them, as *à posteriori* proof of the accuracy of the calculations he had come to by *à priori* reasoning—an experimental proof of the accuracy of what he had laid down."

We have here concurrent testimony from quarters not alone qualified to pronounce upon the merits of the discovery made by Commander Ross of the exact position of the north magnetic pole, but beyond all suspicion as to the truth and sincerity of their opinions. Had the expedition been attended with no other beneficial result, it would have well merited the parliamentary reward which was bestowed upon its enterprising commander, the promotion his officers received, and the increased pay given to the crew from the Lords of the Admiralty. The sum recommended to be voted to Captain Ross was £5000, an amount which it will be seen by reference to his own account of what he expended on the objects of the expedition from his own private fortune, is hardly sufficient to cover what he actually laid out. The Committee, in their Report, which prefaces the testimony of the witnesses examined, adverting to this point, say:—

"Captain Ross alone, the commander of the expedition, who had the anxious and painful responsibility of the health and discipline of the party for above four years, under circumstances of unparalleled difficulty and hardship, and who had the merit of maintaining both health and discipline in a remarkable degree, (for only one man in twenty-three was lost in consequence of the expedition,) is, owing to his rank, not in a situation to receive any reward from the Admiralty in the way of promotion. Having incurred expenses and losses to the amount of nearly three thousand pounds, and received no more than the half pay which had accumulated during

the expedition,* he remains with the same rank with which he went out. Under these circumstances, and looking to the advantages to science and the honour to his country which have resulted from the expedition under his command; looking to the expense which the country has been willing to incur on former occasions for similar expeditions, and to the rewards which it has voted even for far less important and honourable objects, your Committee hope they are not transgressing the bounds of a due regard to public economy, in recommending that a sum of five thousand pounds be voted to Captain John Ross."

Had the Committee recommended double the sum just stated, we doubt whether two individuals, capable of appreciating the advantages thus slightly reverted to in the Report, could be found in England to say that it was more than he had well merited. Indeed the Committee seem impressed with all these advantages themselves; for in their Report they say, "The importance, especially to a maritime nation, of this discovery, and of the observations connected with magnetic science arising thereout, is most highly estimated by the scientific witnesses who have been examined, and is further attested by

* To which should be added, when forming the estimate of Captain Ross's losses, the amount of interest due on the sums as they became payable to him; this would have made about two hundred pounds, which his agent was not able to receive without a certificate from him, and that of course was out of the question.

the zeal with which this branch of science has been of late pursued by eminent men in every country, and by the expense which several foreign governments have of late years incurred for the same object."

The allusion in the latter part of this extract refers to the government of Norway, which has given Hanstein, known for the accuracy of his researches and deductions on the subject of the magnetic pole, the sum of £3000 to prosecute his discoveries in Siberia. Russia has also been pursuing inquiries on the same subject with great zeal within the last few years. It was one of the leading objects of Kotzebue's voyage to ascertain the position of the north pole, and also of Hanstein's. The French too have been paying great attention to the discoveries of magnetism; and M. Arrago and others have devoted much time and attention to the whole subject, especially that branch of it which comes under the denomination of electric magnetism; and our countryman, Mr. Faraday, has been directing the energies of his mind to the same subject.

In Felix Harbour they remained until May the 29th, 1832, and it was here the discoveries were made which we owe to this expedition; the laying down of the Gulf of Boothia, and of the Continent and Isthmus of Boothia Felix, with, as Captain Ross's letter to the Admiralty states, "a vast number of islands, rivers, and lakes, and the undeniable establishment that the north-east point of America extends to the 74th degree of north latitude." Of the period spent here, nearly three years, Captain Ross's letter

gives rather a hurried outline. To this we are enabled, from the testimony of the gallant commander and his officers, to add some interesting particulars of what occurred during their stay.

During the whole autumn of 1830, the voyagers patiently but vainly awaited the hoped-for dissolution of the ice, an event which had taken place the year preceding. It was in vain, however, that they now expected this breaking up of the masses of congealed matter which kept them in close custody; they were unable to retrace their course to any greater extent than four or five miles, when they were again arrested by the inexorable barriers which had kept them so long ice-bound. This winter (1830) was unparalleled in its severity, the temperature descending to a greater depth below the freezing point than we have had any record or account of before.

The natives having informed the party, during their sojourn here early in the year 1830, that about forty miles to the south-west of Felix Harbour there were two great seas, divided from each other by a narrow neck of land, Commander Ross was detached early in April, accompanied by one of the mates, and guided by two of the natives, to ascertain the point. They found that the intelligence communicated by the natives was correct, and that the northern and southern continents were connected by two ridges of high land, about fifteen miles in breadth. The Committee, in reference to this, state, that the expedition has produced "the de-

monstration, that one passage, which had been considered by preceding navigators to be one of the most likely to lead from the Atlantic to the Pacific Ocean, does not exist, thus narrowing the field for future expeditions, should any such be undertaken."

The examination of Captain Ross on this point is so positive, as to his belief that no passage exists here, or indeed at all to the southward of the seventy-fourth degree of latitude, that we extract it entire :—

"170. Do you conceive you have ascertained the fact, that there is no practicable communication between the Atlantic and Pacific Oceans? —Positively, to the southward of the seventy-fourth degree.

"171. You do not mean to express an opinion decidedly, that it is impossible there should be a communication discovered farther north?—Certainly not.

"172. But such communication would be of no benefit to commerce if it should exist?—No.

"173. Being in so high a latitude?—It could not.

"174. You still think it is possible there may be a practicable communication?—I think it possible, but not very probable.

"175. You have no reason to suppose that the land discontinues to the westward?—I have no reason to suppose that it does, or that it does not."

Captain Ross had, it appears, visited this isthmus himself, after his nephew had been sent thither, and was therefore competent, from ac-

tual observation, to pronounce a decided opinion on the point at issue. He mentions a curious and conclusive proof that no such passage exists, in the fact that there is a considerable difference in the altitude of the two seas east and west of Boothia Felix. The conclusion which he draws from this, and it is almost a self-evident one as far as reasoning *à priori* can proceed, is, that there is no such passage; but he admits, reasonably enough, that it is only a negative argument at best. The difference of altitude which was there perceptible amounts fully to thirteen feet, but we do not find it stated whether the east or west sea is the higher. The Captain states, in reply to a question put to him in the Committee on this point, that upon the supposition that the land is continuous northward from the seventy-fourth degree to the pole, we should expect to find that difference of altitude in the seas from the rotative motion of the earth.

The discovery of this difference of altitude between the two seas, bounding the isthmus which unites Boothia with the continent of America, was made by a party under the sole conduct of Captain Ross, at a time when his nephew was engaged on other service, and could consequently have no opportunity, according to Captain Ross, of ascertaining the fact. The discovery was made at two different periods, when the chief of the expedition went in June, 1830, and at the end of May in the subsequent year, with provisions to Commander Ross, then out on two of the exploring parties,

which he was in the constant habit of making during the whole period of their detention in Boothia Felix. There can be no doubt of the fact as Captain Ross states it; as the observations made at those two different periods give the same result; and the measurements were made in the usual way with the theodolite, and the process, to those who understand it, is not only very simple, but incapable of leading to error. There are, it seems, eight feet rise and fall of tide on the east side of the isthmus, and only fourteen inches on the west side: this was tried each time on the spot, and the result found to be, without variation of any extent, the same. Captain Ross broke a hole in the ice, to ascertain the point with the greater nicety.

Captain Beaufort says, that this discovery that no passage exists in the Inlet, adds a short but very important link to our knowledge of the geography of the northern extremity of America; but he says, that while thus far its importance is indisputable, it throws no new light on the navigation of the Arctic seas. Captain Parry supposed, that there might be a channel through Prince Regent's Inlet, into the Pacific Ocean. The closing up of this inlet narrows the range within which a north-west passage may be found to a very short compass, by one of its openings at least. But there are, it appears, three from the end of Lancaster Sound, still open, by which success may be perhaps attainable. These are by the Wellington Channel to the north-west, that is by going to the northward of the chain of islands discovered by

Captain Parry, and approximating the Pole. The islands are those which now go by the name of the North Georgian Islands, including Sabine Island, Bathurst Island, &c. Another proceeds by Melville Island, in the same direction that Captain Parry had previously tried; in the voyage of 1818 he proceeded as far west as 115 degrees of longitude, and in latitude 74 degrees. And the third, according to Captain Beaufort's supposition, would be by getting to the south-west, as soon as the vessel has passed the Cape which Captain Ross supposes to be the northern extreme of America; and then endeavouring to get over to the shore laid down by Captain Franklin and Dr. Richardson, in the expedition of 1825-27, in the direction of the Coppermine River. Captain Beaufort is pressed on this point and asked:

"280. Do you consider that the closing the most southerly outlet, closes that supposed to be most likely to be practicable?—No," is his answer; "for that is not the route I should have taken, if employed on that service.

"281. Do you conceive," the Committee again ask, "that the question is settled up to the 74th degree of north latitude?—We know of no openings between that latitude and Hudson's Bay.

"282. How far east of Melville Island did Captain Ross come?—Twenty degrees of longitude; but the degrees of longitude there are very small.

"283. Was the passage by Prince Regent's Inlet considered, before this expedition, as the

most likely ?—There was always a great difference of opinion on that subject, amongst those who pursued the inquiry.

"284. Was that Captain Parry's opinion ?—I really do not recollect; I had not much conversation with him upon that part of the subject.

"286. If the sea had been clear of ice, there would have been a great probability of finding a passage ?—Undoubtedly, as it would have afforded the shortest road to Franklin's Coast."

While on this part of the subject, as to the practicability of the future discovery of a north-west passage, we should consult the testimony of Commander Ross, who personally examined more of the coast than his uncle; and who had accompanied all the previous expeditions of discovery to those shores, made for some years before. He had served in five such voyages, and passed fourteen summers and eight winters in those seas. His experience, therefore, must be considered as possessing very great weight in coming to a sound judgment on the point. He says, that the closing of Prince Regent's Inlet depends, on actual survey, to a certain extent only; and so far is he from thinking that this voyage has furnished any conclusion against the existence of a north-west passage, he declares that it has, on the contrary, in his opinion at least, only made it more certain that a north-west passage must exist. He gives as the reasons for entertaining this belief, the result of observations he made during this expedition; and the knowledge derived from the additional portion of the continent of America explored on

this occasion, on its northern coast, and of the western coast of Boothia.

The questions put by the members of the Committee to Commander Ross on this point are extracted in full :—

"371. Do you believe that it would be practicable to go through that north-west passage? There is no question that it would be much more easy, now that we are acquainted with the nature of the formation of the continent of America.

"372. Would it be best accomplished by steam or by sailing? By sailing.

"373. Supposing this to be accomplished, would it be at all beneficial to commerce? It is quite uncertain what benefit may result from it; in favourable seasons it may be possible to get through it with very little difficulty; for instance, in our last voyage we sailed in an open sea, where it is usually covered with ice; but it was a remarkable favourable season; such seasons may occur periodically; if so, there would be no difficulty, on those occasions, in getting from Baffin's Bay to Behring's Straits.

"374. Do you believe that any attempt to penetrate would be attended with danger? Nothing more than the ordinary danger of navigating those northern seas.

"375. Any more than in a common whaling expedition? None; except a little more, perhaps, from being necessarily close in with the land; but nothing to deter the attempt.

"83. Is there any difficulty in navigating Prince Regent's Inlet? The only difficulty in

that is on account of the tides, which are stronger there than they are in Lancaster Sound, from its being a more contracted space."

From this it is evident that a discrepancy of opinion exists, (although, perhaps, on explanation, as the questions proposed to both the officers, by members of the Committee, are not very precise, it may be rendered perfectly reconcilable,) between Captain Ross and his nephew, as to the probability of the sought-for passage still being discovered. It seems that Commander Ross was not, up to the moment of his examination, aware of the discovery his uncle had made, that the two seas, right and left of the isthmus which unites Boothia with the continent of America, are of different altitudes; as he says, he had not the means of ascertaining the fact with accuracy; and he is further of opinion, that it would take at least two or three months to ascertain it, with the necessary degree of accuracy such an observation would require. Indeed, on this head he goes still further, and declares that Captain Ross may have made observations which have satisfied his mind, but he (Commander Ross) doubts whether he can have made observations that would satisfy the minds of those who may investigate the matter.

Boothia, the region where they remained during their sojourn in the Victory, is in lat. 70 deg. north, and long. 92 deg. west; "the land," we are quoting Captain Ross's description, "is entirely of primitive formation, the rocks being composed of various kinds of granite, and destitute of vegetation, except in the valleys, in some

of which are lakes of a considerable size, but frozen over, excepting a part of July, August, and September. Reindeer, hares, and foxes, were seen here, and two kinds of grouse and hares were also constantly ranging along the coast."

While here, on the 9th of January, 1830, Captain Ross and his officers having previously fallen in with a party of Esquimaux, whose confidence they were speedily enabled to gain by giving them trifling presents, persuaded them to accompany his party to the Victory. In honour of this visit the ship had all her colours flying. We have the names of two of the tribe, Illictu and Tullooachiu, both of whom the crew drew in sledges for some distance.

An island, a little to the left of the spot where the Victory lay, formed the harbour, and on this island, on a high headland, the observatory was erected. It contained a three feet transit instrument and a six feet telescope, at which frequent observations were made of the planets and other heavenly phenomena.

Since his arrival in this country, Captain Ross has afforded Mr. Burford, the proprietor of the Panoramic exhibitions, the means of gratifying the public curiosity with respect to Boothia; and a view of the position of the ship on the day already stated as that of the visit from the Esquimaux, has accordingly been exhibited for some time past. The little descriptive volume placed in the visitor's hand gives the following sketch of the appearance, &c., of the country. As the whole has been got up under the im-

mediate personal superintendence of Captain Ross, its accuracy may of course be depended on.

"The sea around (the ship) presents one continued field of ice, towering icebergs of gigantic size, and singularly fantastic form; immense masses thrown up by pressure, called hummocks; pyramids, cavities, and an endless variety of forms, heaped together in wild disorder; from some huge stalactitæ are gracefully pendent, others are surrounded by sparry crystal and brilliant icicles, the prominent surfaces tinged with the most vivid emerald and violet tints, and the most intense blue shades lurking in the recesses, presenting a splendid exhibition of icy grandeur.

"The continent called by Captain Ross Boothia, and the adjacent islands, present nearly the same appearance, being only distinguishable from the ocean by the bare sides of steep and precipitous rocks which occasionally rise to a great height, presenting horizontal and perpendicular strata of primitive granite; and in some places vast masses are piled with extreme regularity, in others so confused that they evidently mark some violent convulsion of nature. These dark and frowning precipices, without the least marks of vegetation, form a singular contrast with the pinnacles of ice, and the sparkling whiteness of the surrounding snow. On every side the eye stretches over one interminable field of ice and snow, whose very barrenness is beautiful, but which conveys a feeling of total privation and utter desolation.

"Towards the south, the horizon was overspread by an arch of bright and splendid crimson light, which was always visible about noon, even when the sun was at its greatest southern declination; indeed, the return of what might be considered day was always marked by so considerable a light, that by turning a book towards the south, the smallest print might be read without difficulty; and the brightness of the moon and stars, together with the reflection from the sun, rendered anything approaching a deep or positive gloom of rare occurrence. The opposite portion of the hemisphere was splendidly illumined by that extraordinary and beautiful phenomenon, the Aurora Borealis, vividly darting its brilliant coruscations towards the zenith in endless variety, and tinging the ice and snow with its pale and mellow light; the remaining portions of the sky are clear, dark, and unclouded, thickly studded with numberless stars, shining with peculiar lustre, the whole forming a striking and romantic scene, difficult to conceive, and impossible to describe; the awful grandeur and sublimity of which cannot be contemplated but with the most intense interest and enthusiastic admiration."

This spot was singularly destitute of vegetable productions, the only thing produced there being a little sorrel. The only botanic discoveries they made were some small plants incident to all these climates. Three new ones spring up in the month of August; none of these, however, are used as vegetables, except a little sorrel occasionally. At Fury Beach,

but of course all this time out of their reach, there were some preserved vegetables.

The exploring expedition to the isthmus, between the two seas, was the principal feature of this year's proceedings. Commander Ross discovered that it consisted of two ridges of high land, about 15 miles in breadth, intersected by a chain of fresh-water lakes, reducing the actual dry land to about one-fifth of the whole width. He subsequently surveyed the seacoast south of the isthmus, as far as the ninety-ninth degree, or about a distance of 150 miles from Cape Turnagain of Franklin. He also surveyed thirty miles of coast to the north of the isthmus, and as much to the southward as left no doubt that the land joined Repulse Bay; and he determined that there was no passage southward for thirty miles to the north of their then position.

In the latter period of the summer, they determined to try and explore a more northern latitude, in search of the expected opening; but owing to the vast quantity of ice which remained throughout the whole time, they could only succeed with immense and unceasing labours, by all the means in their power, in retracing their steps for the trifling distance of four miles to a spot which they denominated Sheriff's Harbour, where the winter of 1830-31 was passed. The exploring expeditions were not suspended, as far as they were practicable, during this period. Captain Ross himself surveyed fifty miles more of the coast, and ascertained the important point, that there was no passage in existence below the seventy-first degree.

It was while here that the thermometer fell to the lowest degree of which we have any record, viz. 92 below the freezing point; the sufferings of the officers and crew during this period may therefore be judged of from this solitary fact.

In the autumn of 1831, they were enabled to bring the Victory a further distance of fourteen miles to the northward, but still they had not been able to reach the East Cape, so as to double it, and their provisions becoming nearly exhausted, they began first seriously to think of abandoning the ship, in order to reach the beach where the boats and provisions of the Fury were.

On the arrival of the Victory in Felix Harbour, every possible arrangement had been made to render the situation of the officers and crew as comfortable as, under the circumstances, it was possible to render them. The whole of the deck was covered over at a moderate height with sail cloth properly stretched on spars. The whole of the steam machinery was removed. A snow wall of considerable thickness, about seven feet, composed of large blocks, was erected, to defend the vessel from the northern blasts, and the still more dangerous snow drifts which were daily driven on them. Another great advantage they felt from this wall, as well as from the situation in which they were when Captain Ross describes them as "the inhabitants of an iceberg," was that the non-conducting power of the snow retained the heat longer than otherwise would have been the case:

within this wall also the men usually exercised, when it was too stormy for them to walk on shore or to a distance.

We shall now proceed to give some account of the circumstances of unparalleled difficulty and hardship attending this part of the expedition, to which the Committee advert in their report. The determination to quit Felix Harbour, as the place where they now were was called, was come to early in the beginning of 1832; but they were prevented, by the severity of the winter, from putting it into execution until the 29th of May, when they set off on foot for Fury Beach, a distance of about two hundred miles to the northward. In the course of this journey, they underwent very great suffering, as they had to carry their fuel, their provisions, their sick, and their tents, and specimens. The whole of this journey was over ice and snow, and occasionally on land covered with snow. The greatest want which they experienced in their toilsome progress, was that of water, as they had to dissolve the snow to obtain it whenever required. Although the distance in a straight line, if they could have adopted such a course, was not more than two hundred miles, still, from the devious route they were obliged to pursue, it was fully one half more than that, or upwards of three hundred miles which they had to traverse in these circumstances of danger and distress. Latterly their only beverage consisted of water and lime juice, and this it was necessary to give out rather sparingly. Their sufferings from the cold, however, exceeded every

thing they had before undergone. From this every individual of the whole number composing the expedition suffered severely. When they made a stop at night, and they were not less than thirty-two days and nights travelling these three hundred miles, the only means of accommodation they possessed was a bag to sleep in. Each traveller had his own bag, which he tied tight round his neck, the whole body being covered by it: this mode was adopted to prevent the feet from getting out by any chance, an event which, had it happened, was certain to be the forerunner to a frostbitten limb. The face also was similarly covered, and, for greater security as well as comfort, tied down to the ground.

"84. You lay close together?" asks a member of the Committee of Captain Ross, and his answer is thus given: "Yes; we dug a trench in the snow, and covered it with canvas, then covered that with snow, and then went in; the trench was enough just to contain seven people. We had three trenches, one officer went into each, and we then got into our bags and crept close together during the time we were asleep.

"85. What were you resting on?—On the frozen snow.

"86. What was the bag made of?—Generally of a double blanket: some had them lined with skin.

"87. What was the greatest degree of cold you observed during your journey?—Thirty-two below zero, which is sixty-four below the freezing point of Fahrenheit."

We can add nothing to this plain unadorned statement, to show the reader the nature and extent of the sufferings the party must have endured.

From this journey, Captain Ross himself, in consequence of his wounds, suffered very much in constitution. He states it as his opinion, that if his men had had another hundred miles to perform, they could not have accomplished it, as they were all quite exhausted when they reached Fury Beach; and at that time they had only one day's provision left. They did not reach Fury Beach until the first of July. During this journey the men were only served out with half-allowance, so that to the evils inflicted upon them by the climate, and the toil of daily travel, there was added the lassitude arising from a deficiency of sustenance. So badly off were they in this respect, that it was necessary to send Commander Ross, accompanied by two of the stoutest and strongest of the party, to Fury Beach, in advance considerably of their companions, in order to ascertain if the stores, or any part of them remained in the Fury; for had they gone there without finding the provisions, the whole, or at all events the greater portion of the party must have perished. He was, however, successful in finding them all safe, and returning with a supply of what was so much needed, enabled the whole party to reach the Fury. A question and answer, the latter particularly, proposed to and given by Commander Ross, in reference to this critical point of the proceedings of the expedition, is so

characteristic of the real nature of the dangers they had individually to encounter, that we cannot refrain from placing both before the reader.

"355. What would have been your own fate, if you had not found the Fury's stores?—I should still have subsisted on my own personal exertions; *but I would not have rendered assistance to others.*"

It was extremely fortunate, both on this occ sion and on the first visit of the expedition to Fury Beach, that Commander Ross was one of those who went out, as it was to him that Captain Parry had intrusted the management of burying the Fury's provisions at the period when he had been obliged to abandon her on that coast. He was therefore at once enabled to proceed to the spot, from his personal knowledge of the precise place where they had been then deposited.

On the arrival of the party here, on the 1st of August, they found that the boats belonging to the Fury had been washed out to sea from the positions where they had been secured at the beach; but they had been again driven in near the same place, so that they had not much difficulty in getting at them. A considerable time, however, was spent in repairing and rendering them fit for sea, as upon them now depended the main chance of ultimate escape from their desolate position. They also constructed a temporary hut here, and having made all their arrangements for again trying the sea, as complete as they could, by the 1st of July, they were enabled to get out to sea.

They reached the spot where the Fury had been first cast on shore. The most complete narrative of the subsequent events will be found in Captain Ross's own letter to the Lords Commissioners of the Admiralty, given in page 100, *et seq.*

Captain Ross stated, in addition to the particulars here given, in his examination, some interesting facts. The allowance of provisions at Fury Beach, when they left it on the 14th of August, in the first year they went out, he calculated, at short allowance, would make about half a year's provisions for the whole ship's company; but he adds, that they calculated that only one half of them would have got back—anticipation which Providence fortunately rendered futile—and that then the provisions would have lasted a whole year for those who survived. In consequence of this, their fears naturally began to be excited as to failure of provisions; and this it was which impelled their homeward course, even when it was undertaken, as Captain Ross otherwise had determined upon continuing another winter at Boothia. While they were at Fury Beach the second time, on their return, (for having proceeded as far north as Leopold South Island, in latitude 73 deg. 56 min., and 90 degrees of west longitude, they were driven back by the want of provisions, and the prospect of a winter of great severity,) the rations of provisions served were one pound a week of meat to each man; the bread, however, which was in abundance, was not given at any fixed allowance. In the course of the journey from Sheriff

Harbour, they had only half allowance. The captain says, and all will readily believe him, that this was a period of the greatest mental anxiety to him, and that the greatest difficulty which he experienced was in preserving discipline amongst the crew.

They first reached Fury Beach in July, 1832, and in October of the same year they came back; they were five months travelling up the coast, one month at Fury Beach, and they were trying to escape from the 1st of August, 1832, until October, in the three boats belonging to the *Fury*. Aware of the distance they were from Lancaster Sound, they knew they had no other chance of escaping except by their boats crossing Prince Regent's Inlet, and getting into Lancaster Sound. The distance from Fury Beach to Lancaster Sound, is about one hundred miles.

At this place, Mr. Thomas, the carpenter, died, the third person who ceased to live during the voyage: he fell a victim to the climate, and was the only one of those who died that did. The others died of constitutional diseases which would have been attended, in all probability, with a similar result had they remained in England.

Next year the party again quitted Fury Beach for Lancaster Sound in their boats, and were more fortunate than they had been in the attempt to escape, as they found the ice broken and the passage clear.

On the 25th of August, they crossed Navy Board Inlet, and on the following morning des-

cried a ship in the offing; with what feelings of delight and joy may be readily guessed at, after their trials by land and sea for the four preceding years. The discovery of the *Isabella* was first made by Commander Ross, who, however, did not at once communicate the news, as he was for a while doubtful of the reality. It was one of the many remarkable coincidences of this voyage, that the ship which saved the adventurous party should have been the same which their chief commanded in his first expedition to the Arctic Seas, in 1818.

At the time the *Isabella* picked them up, three of the crew were in a state of sickness; which, according to Captain Ross's statement, but for the kind attention of Captain Humphreys, who commanded it, must have terminated fatally within the course of another week at farthest. Captain Ross is asked, (112,) by a member of the Committee—

"Do you consider that if Captain Humphreys had not entered the spot where he supposed you to be, there was any probability of your remaining in that region during the whole of the year?" —to which his answer is, "Not the whole of us; there must have been loss of life, if Captain Humphreys had not picked us up; those who were sick must have died in the course of a week."

"113. The object of my question is to ascertain if there was any probability, by means of your boats, of falling in with any other whaler?—We might have done so, but it would have been with the loss of our men."

It appears also, that Captain Humphreys took the course he did for the express purpose of looking for the party; he did so, however, it would seem rather in the expectation of finding their bones, than believing them to be alive; and in order to induce his crew—the *Isabella* was employed as a whaler—to accompany him into the part of the Arctic Sea where they discovered the expedition, he told them they were likely to meet with whales there. He had no instructions from his owners to do so, but proceeded there on his own responsibility, and was followed by another whaler, the *William Lee*, from Hull. These ships had both lingered beyond the time any of the rest did that came up in that direction.

The *Isabella* continued about a month in the whaling ground looking out for whales, after Captain Ross and his party had been taken on board. They got down on the fishing ground about a week after that event, namely on the 1st of September, and they continued the whole of that month in it. Captain Humphreys remained a considerable time after he had otherwise intended in order to enable Captain Ross to make his observations; and in doing so, must have run considerable risk. His ship encountered greater danger than usually occurs in getting out of Lancaster Sound, in consequence of being nearly beset with ice. It appears that both the *Isabella* and *William Lee* went up higher into Lancaster Sound by at least a hundred miles than any other whaler had ever done before.

While they remained in the *Isabella*, Captain Ross was enabled to complete his survey of the coast, which had up to that remained unfinished. There was a difference between him and Captain Parry, as to the longitude of the coast of the Fishery, with reference to which Captain Ross here states:—"I have, by an actual observation, put that difference totally out of the question, and proved that the former survey I had made was correct, besides surveying several banks I had passed over in the *Isabella*, on that coast." He considers the surveys which he made in her, subsequently to this period, as more advantageous to commerce than those which he had laid down before. He explored in her several harbours into which ships receiving damage might go in order to repair, and also the places where the whales meet to breed. The whole of this has been surveyed, and fully determined by actual difference of longitude. These discoveries have not yet been made to the Board of Admiralty, because, Captain Ross states, "it would injure his publication to do it."

The result of the surveys here made, will, when generally known, no doubt prove of inestimable benefit to the commercial interests of this country, if we are to judge of them by what we know has followed from Captain Ross's first voyage, which may be thus briefly stated, following as closely as possible his own language. "I think," he says, "by the voyage of 1818, a very valuable fishery has been discovered by me which would not have been known unless that voyage had taken place. I surveyed that

coast from the latitude of 74 deg. to 64 deg., and laid down the latitudes and longitudes, correctly, giving directions for the ships. This was a distance of between 600 and 700 miles. In point of fact, previous to my exploring Baffin's Bay in 1819, the fishing ships were never accustomed to go more than about a hundred miles north of Dico Bay; and never were able to cross over to Lancaster Sound, which has now become a common track. I explored the whole of Baffin's Bay in that year, and discovered that it was possible to cross that barrier of ice that had never been even attempted before. And since that time, there has constantly been a great accession of ships from other fisheries resorting to Baffin's Bay and Lancaster Sound for fishing; and certainly property in the way of fish, to the amount of nearly two millions sterling have been derived from that fishery in consequence of that discovery. In the year 1820, as many as 1,028 ships went to Greenland fishery: and during the last year only two, the remainder all going to Davis's Straits. Previously to my exploring Baffin's Bay, it was the custom for the fishing ships to return home in July and August. I stated the practicability of their waiting the months of August and September, as being the best fishing months, and that has hitherto proved to be the fact."*

The *Isabella* arrived at Stromness in Orkney,

* In 1830, more than twenty ships were lost in crossing Melville Bay, by a southerly gale; they got beset in the ice.

the 27th of October, 1833, thirteen months after Captain Ross had abandoned his ship—thirteen months of hardship unequalled in the annals of the maritime service. The most remarkable part of the expedition is the small number of deaths which took place during the period. One of the seamen died in the early part of the voyage from consumption, and the second death was occasioned by mental despondency; the third only, that of the carpenter, being in any way attributable to the effects of the climate. Captain Ross, in the summer of the year 1830, while at Victory Harbour, had a fall and broke both his legs; this, and some adventures with the bears, partaking strongly of the ludicrous in combination with danger, were the only mishaps which befel the party. This result might in any other case be attributed to accident as much as the carefulness of the head of the expedition; but it should be borne in mind, when forming an opinion on this point, that during Captain Ross's former voyage to the same part of the world, in 1818, not a single man out of the fifty-eight of which the crew of the *Isabella* then consisted was lost, during a stay of nine months, and at a period when he must have had very little experience in the dangers of the climate, and the facilities for surmounting them. Anthony Buck, one of the crew, also, it appears lost his sight in consequence of an attack of epilepsy. This man was at first supposed by Captain Ross to have practised deceit, inasmuch as it was suspected he knew himself to be subject to the disease at the time when he engaged to serve

in the expedition. But this was not the case, as appears from the man's own affidavit, sworn before Mr. Moorsom, of Whitby, and the concurrent testimony of other persons; the Committee have recommended his case to the consideration of Government. [See the *Appendix.*]

The arrival of Captain Ross in the British Islands was immediately announced at Lloyd's, where the event, at first incredible, was hailed with great and universal satisfaction. It came with such suddenness that doubts were thrown on the authenticity of the intelligence. The arrival, however, of the traveller in Hull removed any doubt which might have existed. Captain Ross, accompanied by Commander Ross, Mr. Thom the purser, and Mr. M'Diarmid the surgeon, was received in that town with every feeling of respect, and a public entertainment given him, at which the freedom of the borough was presented to him, with an appropriate address on the part of the corporation. He arrived in London on the 19th of October, at the Portland Hotel, whence his letter to the Admiralty Commissioners is dated. Next day, Sunday, he and his nephew waited on Sir James Graham at the Admiralty, and proceeded thence to Windsor, where they had the honour of being presented to his Majesty, and spending the evening at the royal table. The whole crew had arrived in London by this time, and mustered on the ensuing Tuesday at the Admiralty.

To the importance of the results of this fortunate voyage of discovery, the House of Commons' Committee advert in their report in the

following terms:—"Independently of the demonstration that the passage which had been considered by preceding navigators to be one of the most likely to lead from the Atlantic to the Pacific ocean, does not exist, thus narrowing the field for future expeditions, if such should ever be undertaken; independently of the addition of between six and seven hundred miles of coast to our geographical knowledge, and of the valuable addition to magnetic science and meteorology, which this expedition will supply, your Committee cannot overlook the public service which is rendered to a maritime country, especially in time of peace, by deeds of daring enterprise and patient endurance of hardship, which excite the public sympathy, and enlist the general feeling in favour of maritime adventures. Of this result they have strong evidence in the national subscription which furnished the funds for the expedition of Captain Back in search of Captain Ross and his gallant party, to which the Government also contributed two thousand pounds."

When it was found that nearly four years had elapsed without any intelligence from Captain Ross or his companions, the Royal Geographical Society determined on awakening the sympathy of the public towards the necessity of an exploratory expedition by another route in search of the missing party. A public meeting was accordingly convened, and in a short time a fund nearly sufficient raised by subscription to fit one out with this excellent object in view. Government, it is said, through the instrumen-

tality of Mr. Under-Secretary Barrow, of the Admiralty, to whose zeal and knowledge science is so much indebted, advanced two thousand pounds to complete the required amount. The expedition to search for Captain Ross in Regent's Inlet, was intrusted to the superintendence of Captain Back, who left this country in February, 1833. [See the *Appendix*.]

It has been stated, in the early part of this narrative, that Captain Ross's own losses were heavy. On this subject he said to the Committee, that he had sustained, besides the three thousand pounds for the outfit of the expedition, in addition to what his spirited friend and patron, Mr. Felix Booth, had advanced, the loss of the interest upon the amount of his half-pay, which had accumulated while he was away, amounting to two hundred pounds. He also states, that he might have been paid full pay by the Government, which would have amounted to three thousand pounds, at the rate of pay given to himself and Captain Parry on their former expedition in the *Isabella* and *Alexander*; this should be estimated at £600 a year, the double pay of a commander. Besides this, with the actual loss of his fortune in fitting out the expedition, he raised £1000 on his own property, and lost about as much more in instruments and other articles. In addition also to these actual losses, he stated to the Committee that he was himself liable to the payment of the men's wages; but his opinion of the disinterested conduct of Mr. Booth was such that he believed he

would have paid it to him back, although he was not bound to do so.

On the latter point the following correspondence took place between Captain Ross and the Admiralty a few days after his return.

Copy of a letter from Captain John Ross, R. N. to the Hon. George Elliot, C.B.

"*Portland Hotel,*
"*22d of October*, 1833.

"SIR, The expedition from which I am now returned, having been undertaken in 1829 at my own expense, I necessarily came under certain engagements with the crew, which, according to my expectation at the time, might be likely to terminate in fifteen months, and in that case I should have been enabled to fulfil those engagements; but as the absence of the men has been protracted to four years and a half, the claims on me have greatly increased, while, by the loss of my vessel, the means of discharging them has been much diminished.

"In venturing to request you will submit my case to the Lords Commissioners of the Admiralty, I feel assured that the public nature of the undertaking, and the unparalleled sufferings which have attended it, will bring their lordships to the consideration of the circumstances I have stated, with every disposition to afford me the means of discharging obligations of so sacred a character. It is true that according to law, the men may not be able to compel the payment of their wages after Oct., 1831, when all hopes of saving the vessel led to her abandonment. But

from a sense of what is due to my character as an officer of the navy, and a feeling of what is due to the men, whose constancy was never shaken under the most appalling prospects, and to whose fidelity and obedience I owe so much, I should be ashamed of myself if I could for a moment entertain a thought of any subterfuge, whereby I might evade the payment of their well-earned wages. I am anxious, however, with my slender means to appeal to their lordships in the first instance, in the confident persuasion, that an undertaking so entirely of a naval nature will receive their countenance and support; and that under their lordship's recommendation, his Majesty's Government will be pleased to consider the voyage as one that the payment of the officers and men should become a public charge.

"As the men have most of them arrived in town, and wait the adjustment of their claims, I need scarcely add that it is very desirable that I should, with as little delay as possible, receive an intimation of their lordships' decision upon the application.

"I have the honour to be, Sir,

"Your obedient Servant,

"JOHN ROSS,

"Captain of the Royal Navy."

Copy of a letter from Mr. Barrow to Captain John Ross, R. N.

"*Admiralty*,
*25th of October*, 1833.

"SIR, I have received and laid before my Lords Commissioners of the Admiralty, your letter, dated on board the *Isabella*, of Hull, in Baffin's Bay, in September last, and I am commanded to express their lordships' satisfaction at the providential deliverance of yourself and companions from a perilous situation, unequalled in the records of navigation, and their congratulations at your safe return.

"I am, &c.

(Signed,) "J. BARROW."

Copy of a letter from Captain John Ross, R. N. to Mr. Barrow.

"*26th of October*, 1833.

"SIR, In consequence of a verbal communication with Sir Thomas Hardy, I have the honour to transmit for the consideration of the Lords Commissioners of the Admiralty, a list of the officers and men employed on the late expedition to the Aretic Seas, showing the pay due to each, on the principal that I should have felt it my duty to act upon towards them, had the discharge of those claims rested with myself, instead of being taken up by their lordships on the grounds of the public nature of the service to which the object of the expedition was directed; and I have reason to know that the officers and men will consider themselves fully recompensed by the proposed scale of pay

"I trust I may be allowed this opportunity to express, for myself and for every person under my command, the deep sense we have of the kind protection so cheerfully extended to us by their lordships.

"I am, &c.

(Signed,) "JOHN ROSS,

"Captain of the Royal Navy."

Copy of a letter from Mr. Barrow to Captain John Ross, R. N. dated 28th October, 1833.

"*Admiralty,*
*28th of October,* 1833.

"SIR, I have received and laid before my Lords Commissioners of the Admiralty your letter of the 28th inst., transmitting a list of the officers and men employed on your late expedition to the Arctic Seas; showing the amount of pay due to each, according to the scale by which you would have felt yourself bound to remunerate them for their services, and I am commanded by their lordships to acquaint you in reply, that although these men have no claim on his Majesty's Government, inasmuch as the expedition was not sent out by the Board of Admiralty, yet, in consideration of its having been undertaken for the benefit of science, of the sufferings these men have undergone, the perilous situation in which they were placed for so long protracted a period, and their uniform good conduct under circumstances the most trying to

which British seamen were, perhaps, ever exposed; and their lordships being moreover satisfied of your inability to fulfil the engagements entered into by you, and of the destitute state in which these people have providentially arrived in their native country, have been induced, under such peculiar circumstances, from a feeling of humanity, immediately to relieve you from your engagement, and them from pressing necessity, rather than wait till Parliament shall be assembled, to which it is intended to submit the case. Their lordships have therefore directed the Accountant General of the Navy to advance to you the sum of £4,580 12*s.* 3*d.*, as the amount which, by your statement, you feel yourself under an engagement to pay to the persons therein named, from each of whom, on making their payment, you will take a stamped receipt as a voucher in full of all demands they may respectively have upon you.

"I am, &c.,

(Signed,) "J. BARROW."

The recommendation of the Committee to vote Captain Ross a sum of five thousand pounds will therefore barely cover his losses, although the Admiralty have made good the liabilities which he was under to the men. The Committee say that to the importance of the considerations involved in the inquiry before them, they are happy to be enabled to report his Majesty's Government has not been insensible, and that although Captain Ross's expedition was

undertaken entirely on private grounds, and the Board of Admiralty could not therefore be held responsible for any liabilities incurred, nor called upon in strictness to notice in any way the services of the individuals engaged in it; yet, as far as the power of the Admiralty extended, none of these services have gone unnoticed or unrewarded. It appears also from a memorandum delivered to the Committee by the Admiralty, that "all the men have received double full pay until they finally abandoned their ship, and full pay after that until their arrival in England, amounting to the gross sum of £4,580; that they have besides been employed in eligible situations in the dockyards, or placed in others that will lead to promotion;" that Mr. Abernethy, the gunner, "has been promoted, and appointed to the Seringapatam;" that Mr. Thom, purser, "has been appointed to the lucrative situation of purser of the Canopus, of 84 guns;" that Mr. M'Diarmid, the medical officer of the expedition, "has been appointed assistant-surgeon of the navy, and when qualified to pass his examination, will be promoted to the rank of surgeon;" that Commander Ross, to whom it appears the greater part of the scientific results of the expedition are due, "has been placed on full pay, and appointed commander of the Victory for twelve months, that he may by that length of service be entitled to receive the rank of post captain, which is, by a special minute of the Admiralty, insured to him at the expiration of that time;" and that "Captain John Humphreys, of the Isabella, to whose

persevering humanity alone Captain Ross and his party under Providence in all probability owe their lives, has received that remuneration, with the expenses of bringing them home, which upon consideration has been thought proper by the Admiralty, and which the Committee state appears to them to be a reasonable compensation." In these payments it ought perhaps to have been taken into consideration, whether Commander Ross and Mr. Thom might not have had, in addition to the promotion which has been so properly and promptly conferred upon them, their pay for the period of time they actually served with the Victory, and until they were taken up by the Isabella.

Immediately on Captain Ross's reaching London, the Committee for managing the Arctic Land Expedition under the command of Captain Back, met to decide on the steps they should pursue, in consequence, with respect to that officer's recall. The meeting took place on the 22d of October, Admiral Sir Charles Ogle, one of its most active members, in the chair. The following communication from Captain Ross was read at the meeting :—

"*London, October 20th.*

"To the Committee for managing the Arctic Land Expedition.

"GENTLEMEN,—Of the many circumstances of high gratification which have welcomed the delivery of myself and my companions from four years of severe suffering, there is nothing

(next after a deep sense of the merciful Providence wherewith we have been surrounded in such great perils) which has excited so strong a feeling of gratitude, as the humane and generous sympathy of a number of persons, who, at the chance of being instrumental in our preservation, contributed, with the assistance of his Majesty's government, a sum ample for the purpose of paying the expense of an expedition, which was so promptly and with so much judgment put in motion by your Committee, and so wisely confided to the guidance of Captain Back, whose known intelligence and intrepidity gave to the Committee a certainty that all would be done which a sagacious mind and unflinching perseverance could accomplish. It is my wish and duty to make the earliest acknowledgments of this instance of wide extended compassion towards us, and I venture to rely on the favour of the Committee to receive with allowance this imperfect expression of my feelings towards them, to his Majesty's government, to the contributors to the undertaking, and to the Hudson's Bay Company, for the efforts which might have proved, as designed, the means of snatching myself and my faithful companions from the further sufferings which, almost to the last moment, we seemed doomed to encounter.

"I have the honour to be,
"Gentlemen,
"Your very humble and grateful servant,
"JOHN ROSS,
"Captain, Royal Navy."

To which the following answer was directed to be sent;—

"*Arctic Land Expedition,*
"21 *Regent-Street, October* 22.

"SIR, I have the honour to acknowledge the receipt of your letter of the 20th instant, addressed to the Committee for managing the Arctic Land Expedition, and returning your thanks to its members, to the Hudson's Bay Company, and all the subscribers towards the equipment of that expedition, for the exertions made by them, in hopes of rescuing you and yours from your perilous situation.

"In reply, I beg, in the name of the Committee, and of all the subscribers, to offer you our warmest congratulations on your safe return. And although the main object of Captain Back's expedition is thus attained without his assistance, yet we feel much gratified that it should have gone, inasmuch as it proves to all future adventurers, in a like cause, that their country will not be unmindful of them: while on the other hand your return also shows that no situation should be considered too desperate to be beyond the reach of a similar exertion.

"I have the honour to be, Sir,

"Your obedient servant,

"CHARLES OGLE, Chairman."

"To Captain Ross, R.N. [redacted] Navy."

At the same time a despatch was agreed to be forwarded by a winter express to Captain Back,

acquainting him with Captain Ross's return, and directing him to turn his attention now entirely to the second object of his mission,—completing the coast line of the north-eastern part of America, of which little more than one hundred and fifty miles remain to be traced. The reader will find in the Appendix the latest account of the expedition received in England.

On the Monday succeeding the arrival of Captain Ross in London, Mr. Barrow, the under-secretary at the Admiralty, forwarded a copy of his letter to the Lords Commissioners of that board, to the secretary at Lloyd's, accompanied with the following note :—

"*Admiralty, Oct.* 22.

"SIR,

"I am commanded by the Lords Commissioners of the Admiralty to transmit you the copy of a letter addressed to their secretary by Captain Ross, containing an outline of the proceedings of that gallant officer and his companions, and their providential deliverance from a situation of peril unequalled in the annals of navigation; and I am to express their lordships' wishes that a document so honourable to the parties and to the naval service of the country may, through the committee for managing the affairs of Lloyd's, be made public.

"I am, Sir, your very humble servant,

"J. BARROW.

"Mr. Bennett, Lloyd's."

We have seen the following copy of a letter, written to a private friend, by Captain Ross, dated (like his communication to the Lords of the Admiralty, referred to in Mr. Barrow's note, on board the Isabella) the 17th of September, 1833 :—

"My Dear Sir,

"I am sure you will be glad to learn that I am still 'numbered among the living.' I avail myself of the opportunity of a ship bound to your hospitable island to send you these few lines. Our voyage has been most eventful and interesting; and although it has ended in the loss of our little vessel, which we have been obliged to leave frozen up in a harbour which we discovered, we trust that, when the important discoveries we have made, and our sufferings are taken into consideration, no one concerned will be suffered to lose on this occasion. Our endeavours have indeed been completely successful, but in a very different way from what had been anticipated. We found *land* instead of *water*, and have unquestionably proved that there is no north-west passage to the southward of 70 deg. north, or by Prince Regent's Inlet. Our discoveries may be said to consist in the establishment of no passage to the southward of 70 deg., the discovery of a large inhabited tract of land between latitude 69 deg. and 72 deg., and an isthmus which divides the eastern from the western sea, only five leagues in breadth; and the discovery of the true position of the

magnetic pole. We have existed on the provisions landed from the Fury; and last winter lived in a *snow-house* on Fury Beach. On the 26th August last we were picked up by my old ship the Isabella, in the Fury's boats. We have only lost three men. I need scarcely add, that our constitutions have had a severe blow, but we have all wonderfully recovered since we got on board the Isabella, where we were most kindly received.

"Yours, &c.

"JOHN ROSS."

Mr. Thomas, the carpenter, who died from the effects of the climate at Fury Beach, had been carpenter of the Eurydice hulk at Woolwich, when the expedition was undertaken. He was an able and intelligent man, and volunteered his services to accompany Captain Ross in this expedition. His wife then resided at Chatham, and not having heard any thing of him or his companions for the long period of their absence, concluded him dead, and went into mourning. But on the intelligence of the arrival of Captain Ross and his companions reaching her, she left home in the expectation of finding her husband at Woolwich: a confirmation of the truth of her forebodings here awaited her. In many other instances the relations and friends of those in the expedition acted on the same supposition, of their having been lost. Captain Ross himself had, previous to his departure, raised some money for his own equipment, by exe-

cuting deeds for the conditional transfer of his property, and in one instance the parties had availed themselves of their legal right to obtain payment, calculating, as they did, that he had been lost.

# APPENDIX.

## CAPTAIN BACK'S EXPEDITION.

WHILE this volume was going through the press, despatches were received (June 18) by the Royal Geographical Society from Captain Back, and the following extracts, containing the most interesting portions of his narrative, were published for the information of the subscribers to his expedition, and the public at large.

"*Fort Reliance, East-end of Great Slave Lake, Dec.* 7, 1833.

"I overtook Mr. King at Cumberland House, and got him fairly off, with the two boats heavily laden with 123 packages of 90 lbs. each, by the 7th of June.

"The accounts I had received from different persons of the low state of the water in some of the rivers foreboded considerable detention to the boats; and, other circumstances considered, it was evident to me that they could not reach the eastern end of Slave Lake before the commencement of the cold weather. Giving up all hope of seeing them again before the ac-

complishment of my plans, I stimulated my crew to the utmost, and actually worked them, until my arrival at Fort Chippewayan, which was about the end of July, for eighteen hours a day. On my route I met Mr. M'Leod, an old acquaintance of mine, and for whom I had a letter from the resident Governor, Mr. Simpson, intimating a wish that he should accompany the expedition; and I am sure you will be happy to learn that he immediately consented to place himself under my orders, and undertake the management of the Indians at our winter quarters.

"On our reaching Fort Chippewayan, we made every inquiry relating to the direction of the rivers that debouched at or about the Fond du Lac; and though there evidently appeared to be a nearer way to the Barren Grounds than by the circuitous one originally intended to be followed, yet the vague and unsatisfactory answers of the Indians, together with their obvious ignorance of the distance to the Great Fish River, made me at once decide to go by Great Slave Lake.

"It was the 7th of August when we landed at Fort Resolution, owing to the detentions incurred by sending to the Salt Plains (a little to the westward of the Slave River) for a winter's stock of that invaluable article.

"Many Indians had assembled at this trading post, and their principal chief, Le Grande Jeune Homme, was waiting my arrival, under a sort of promise held out to him that he should accompany me. But as I was fully aware that his

services must be purchased at a greater rate than our limited means could afford, and that he knew nothing about the country to the eastward, I was glad to compromise the affair and reward him for his loss of time by a present of the value of forty beaver skins.

"The season was advancing too fast to admit of any more delay, and being unable to procure a guide to the Thlew-ee-cho-de-zeth from among the Indians, not one of whom possessed a knowledge of its locality or direction, I determined on leaving Mr. M'Leod to bring the stores, while I preceded him in a half-sized canoe, with a crew of two 'half breeds,' a Canadian, an Indian, and an Englishman. With this motley and most rickety craft I commenced the survey towards the north-east. Our course first lay in the direction of the Riviêre á Jean, and along the low swampy shores of the lake, then across to numerous islands, which led us to the north side of the lake. The scenery there was composed of the most craggy and picturesque rocks—mostly primitive, and consisting of flesh-coloured feldspar and quartz, with a few trees of inconsiderable size.

"As we advanced, the appearance became more imposing, from the circumstance of the granitic, or rather the last formation, yielding to the trap, which displayed itself in long parallel ranges of natural precipices, that not unfrequently extended to the horizon.

"In two places the southern shore approaches within a mile of the northern, and the detroits thus formed have never been known to freeze.

More than one island had a columnar or basaltic form on the precipitous or southwest side The water, unlike the turbid yellow we had left, was now of a transparent blue, and so cold that ice often formed during the night.

" had now got to lat. 62 deg. 51 min. 40 sec. N., and long. 109 deg. 25 min. W., and could perceive a long blue point stretching to the S. E., which my Indian said we must round, or make a portage to get to the eastern extremity of Great Slave Lake. 'There,' continued he 'you will find a river which (I know not what the Great Chief may do, but) we, who are born here, cannot ascend.' Upon further inquiry I found he was right, and that some time would be saved by taking a more direct course, which could only be effected by following the uncertain trending of a stream that is called 'Hoar Frost River.' On our rounding a point, this presented itself in a cataract of seventy feet descent, and discouraging as this was, and still more so the range of mountains through which it forced its passage, we commenced the operation of transporting the canoe and baggage over hill and valley, full 1700 feet: the greatest difficulty consisted in conveying the canoe through the fallen and entangled wood. The numerous rapids in the river annoyed and delayed us; but the next day we passed the last woods, and entered a large lake in the Barren Grounds. The latitude of its southern extremity is 63 deg. 24 min. 23 sec. N., long. 108 deg. 11 min. W., or a little to the northward of

the Chesadawd Lake of Hearne, which, however, is not known by the natives.

"In making a succession of portages from lake to lake, I crossed the same traveller's line of route, and fell on a lake of such magnitude as to be bounded on the S. by E. by the horizon. In a N.E. direction it led us to a river, which we went up, and again launched the canoe on another extensive sheet of water. We were bewildered several times among islands and deep bays; still I kept going to the N. E., in which direction I was the more assured the river must be, from the general flatness of the surrounding land, and particularly from the north-west dip of a few sand-hills that were occasionally seen to the northward.

"After being three days on the same lake, I encamped among some sand-hills at the bottom of a bay, and despatched the men in two parties to look for the Thlew-ee-cho-de-zeth, the source of which I accidentally discovered while occupied in taking some angles from the summit of a hill.

"On the third day the people returned, having fallen on the river at some distance from us. The canoe was immediately carried to its stream, which is narrow in some parts, and connected with a chain of small lakes by detroits and rapids. I could not forbear giving my poor voyageurs a glass of grog on this occasion, after which grateful ceremony we pursued the meanderings of the current, sometime with ice on each bank, till the first of September, when my little canoe was so shattered, the nights were so

cold, the country totally destitute of wood, and the men fairly exhausted, that I could not with any degree of prudence incur further risk this season.

"The place whence I returned is in latitude 64 deg. 41 min. N., and longitude 108 deg. 12 min. W., and about 115 miles E. of Fort Enterprise, and only 109 miles from the nearest part of Bathurst Inlet.

"We had been fourteen days without wood, and on the 5th of September got to the first dwarf pines, about two feet high, and on the 7th concluded the journey, by arriving at the east end of the Great Slave Lake, where I had previously directed Mr. M'Leod to commence the building of our establishment.

"The two boats under Mr. King got to us exactly a week after, and it is satisfactory to state that most of the stores, &c., were undamaged.

"Our winter house I have called 'Fort Reliance,' from a feeling of dependence on that Providence which will always support us amidst every trial to which we may be exposed. It is situated on a sandy point in a deep bay, which receives two small rapid streams from the northward, and is surrounded by mountains of red micaceous granite and gneiss.

"Fort Reliance is in latitude 62 deg. 48 min. 15 sec. N., and longitude 109 deg. 10 min. W., the variation of the needle being 35 deg. 41 min. E., and considering this and the entrance of the Mackenzie River as the two extremes of Great Slave Lake, it will be found to equal Lake

Michigan in length, and may therefore be considered as the second largest lake in America.

"I have a very compact observatory built, where the needle is performing its diurnal functions with more or less regularity, according to the appearance of the aurora, or other atmospheric phenomena. The dip, magnetic force, &c., have also been ascertained: nor am I conscious of having omitted anything that the friends and projectors of the scientific part of this expedition may have expected from me."

THE following passages from the examination of Captain Ross will be read with some interest; we prefer giving them in this detached state to incorporating them with the body of our narrative, that they might not interfere with its continuousness.

SURVEY OF THE COAST OF BAFFIN'S BAY.

"184. In your actual survey of the western coast of the bay of Baffin, were you able to correct any material errors in the existing charts? —Oh, most certainly; particularly of two banks which I had formerly laid down, called the Alexander and Isabella banks, which had been expunged from the charts, which I originally made, by subsequent survey, but re-established by me on the same spot.

"185. That is of importance, because the new whale fisheries are on the spot?—Yes.

"186. What latitude is that in?—About sixty-nine.

"187. Have you laid down any part of the

north coast of Frobisher's Strait for the first time?—Yes. We consider Frobisher's Strait to be fictitious. We laid down the coast between Resolution Island all the way to the height of seventy-four north, most of which had not been laid down before.

"188. When you say Frobisher's Strait is fictitious, do you believe there is no sea between Resolution Island and the main land?—Certainly I suppose that; but there are two Frobisher's Straits; there is one Frobisher's Strait in making Greenland an island, that I consider to be fictitious; if it is the one that makes Resolution Island an island, that is one certainly."

STEAM-BOATS IN THE ARCTIC SEAS.

"193. How long were you enabled to make use of the paddle wheels of your steamer after you reached the heavy ice?—The steam-engine gave way before we reached the ice. We were run much among the ice with it, but as far as I could judge they would answer uncommonly well. They answered beyond my expectation.

"193. From your experience in navigating the Polar seas, do you think it safest to navigate those seas with a steam-boat with the paddles projecting from her side?—Far better than any other mode.

"194. Are not the paddles peculiarly subject to damage?—They were peculiarly constructed for the purpose, so that I could raise them out of the water at pleasure; one man was sufficient to disengage the paddle entirely from the en-

gines, and raise it out of the water, and out of the way of pressure.

"195. And it was so contrived, that you conceive steam to be applicable to the propelling of vessels in the Polar seas?—Yes."

THE NORTH-WEST PASSAGE.

"196. From your experience of these seas, do you conceive that any further attempt to discover the north-west passage would be attended with great danger?—I do.

"197. And if successful, would it be attended with any public benefit?—I believe it would be utterly useless.

"198. The indications that were relied upon in the beginning of these voyages of discovery, as to leading to the conclusion that a passage might be found, have totally failed?—They have been totally disproved.

"199. Does your experience lead you to make the same remark with respect to making the northern pole by the Spitzbergen sea?—I think it would be attended with danger.

"200. But you think it is still possible?—I think that the attempt was made at the wrong time of the year."

HIGHEST DEGREE OF LATITUDE REACHED.

"201. What is the greatest degree of latitude that any ship has ever reached?—Scoresby has recorded that his father reached eighty-four.

"202. Eighty-three has been decidedly

reached?—Oh, yes! Captain Parry got to 82 deg. 45 min.

"209. What is the greatest degree of latitude that you have found natives?—In seventy-seven north."

### THE BAFFIN'S BAY WHALE FISHERY.

On this subject Captain Charles Beaufort is examined as follows:—

"287. Have you the means of knowing whether the whale fishery has been much extended by Captain Ross's first voyage?—Since the discoveries in that part of the world, the whalers have certainly gone in great numbers into Lancaster Sound, and have been very successful in finding whales there.

"288. Are you aware how far the land was correctly laid down on the west side of Baffin's Bay previous to Captain Ross's voyage in the year 1818?—It had been laid down originally by the early discoveries of Baffin, Frobisher, and others; some doubt, however, was afterwards thrown upon its correctness; but the voyages of Ross and Parry have shewn that these old navigators were more correct than had been imagined.

"289. Is it not a fact that previous to Captain Ross's first voyage, Baffin's Bay had been omitted in the Admiralty's charts, in consequence of the great doubt thrown upon the early discoveries?—I have been told so, but I never saw any chart in which it was omitted.

"290. To whom do you attribute the discovery of the whale fishery, on the west side of

Baffin's Bay ?—To the several voyages that have been made there, but to no one in particular.

"291. Which was the first in order ?—Captain Ross's, certainly."

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The amount of wages paid by the Admiralty to the men engaged in the expedition according to the rule recommended by Captain Ross, was to Mr. M'Diarmid, the surgeon, 818*l.* 18*s.* 3*d.*; Alexander Brunton, first engineer, 617*l.* 15*s.*; Thomas Blanky, mate, 345*l.* 9*s.* 6*d.*; Thomas Abernethie, mate, 329*l.* 16*s.* 8*d.*; George Taylor, mate, 329*l.* 9*s.* 4*d.*; Chimham Thomas, carpenter, 296*l.* 10*s.* 8*d.* (died;) William Light, steward, 172*l.* 14*s.* 8*d.*; Richard Wall, seaman, 171*l.* 16*s.*; Allan M'Innes, second engineer, 169*l.* 18*s.* 8*d.*; Robert Shrewe, carpenter's mate, 166*l.* 9*s.* 4*d.*; Henry Ayre, cook, 165*l.* 2*s.* 8*d.*; Anthony Buck, seaman, 127*l.* 9*s.*; John Park, seaman, 126*l.* 17*s.*; Joseph Curtis, seaman, 125*l.* 17*s.*; John Wood, seaman, 125*l.* 7*s.*; Barney Lackey, landman, 121*l.* 18*s.* 8*d.*; David Wood, seaman, and George Baxter, landman, 121*l.* 11*s.* each: James Dixon, landman, 89*l.* 8*s.*; and James Marslin, armourer, 36*l.* 18*s.* 8*d.* The two last are the individuals who died on the passage, from constitutional disease.

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We shall now present the reader with a brief account of Captain Ross's opinion, as delivered

before the Committee, on the subject of magnetic electricity, and some other astronomical points.

"236. Among the valuable observations of every kind which you described the voyage to have enabled you to collect, are the Committee to understand that there are observations connected with magnetic electricity?—I know of no magnetic electricity; I know of no such term; but the effect of light and heat upon it is an important discovery which we have made.

"237. With respect to observations connected with astronomy, are the Committee to receive such information from yourself, or from Commander Ross?—They may receive it from either; Commander Ross had the charge of the transit which took down the transit of the stars, and also the occultations of stars by the moon and moon-culminating stars.

"238. Can you or Commander Ross supply the Committee with a series of observations connecting the gradual dip of the magnetic needle, with its perpendicular position at the point which you have assigned as the true magnetic pole?—I have them, but not in a state to set before the Committee.

"239. You stated that you did not recognise such a term as magnetic electricity; do you mean to state you do not believe there is any identity or necessary connexion between magnetism and electricity (electro-magnetism?)—I believe they may combine with each other, but I do not understand how electricity can be magnetized; the magnet may be electrified, but I do not know that it can.

"240. Is that opinion formed from the observations you made during your last voyage on the phenomena of electricity and magnetism?—No, there was no natural electricity present where we were.

"241. Then you made no observations with respect to electrical phenomena which you think would be important to science?—No, none whatever.

"242. With respect to the aurora borealis, it has been matter of some discussion whether the aurora borealis is accompanied with noise?—I never observed any noise with it, but I have a new theory of it which I intend to publish.

"243. Did you observe any magnetic phenomena which you consider of importance apart from the existence of the magnetic poles?—Yes, the effect of light upon the magnet, and its exposure to such climates."

The following, from the examination of Mr. Children, one of the secretaries of the Royal Society, also has reference to the same subject:—

"414. You stated to the Committee that the discovery of Commander Ross corresponded with the preconceptions of Professor Barlow; do you apprehend that the magnetic pole is a fixed point, or moveable?—The observations hitherto made cannot possibly be considered sufficient; for that must require repeated observations. I know it was the opinion of Professor Barlow, two or three years ago, that there were not one or two but perhaps several magnetic poles; the poles are probably fixed

points; but they may be moveable. Mr. Barlow has subsequently I believe given up that view.

"415. Are we not quite at the threshold of knowledge?—Yes, and every observation is of course valuable.

"416. Every contribution to magnetic knowledge is of very great importance to a maritime country?—Yes, I should think so; very much.

"417. And worth the sacrifice of money? —Certainly; and it is certainly something for an Englishman to have been the first and only one who has experimentally decided the true position of the north magnetic pole, which he has clearly done; he appears to have gone to a point where the dipping needle stood directly perpendicular, where the horizontal direction was entirely lost; that is, as Mr. Barlow expresses it, the pole itself.

"418. Did Captain Parry follow the same line?—I do not recollect; he cannot have been, on his voyage; at the very spot where Commander Ross was the compass did not traverse at all; it was perfectly upright."

### THE ESQUIMAUX.

The habits and mode of livelihood of the Esquimaux have been rendered familiar to most readers by the descriptions, ample and correct, which former travellers in the regions they inhabit have given at successive periods. They present, from their insulated position, a remarkable contrast to most other savages, their manners being, as we have already stated, remark-

ably mild and gentle; and among them a spirit of the most perfect contentment with their own condition is one of the remarkable features of their character. The wants of the Esquimaux, a necessary consequence of the climate in which he is found, are very few, and very readily supplied, even by such comparatively rude means as he possesses to arrive at their attainment. Contented with his own lot, as much from carelessness about himself, as from want of knowledge that others are better off, if his snow hut be sheltered from the north wind, and if he find a sufficient supply of provisions for the day, he seeks no more; his greatest affliction is the loss of his day's hunting, from the severity of the weather: and living in a state of peace with each other, their nomadic life presents none of those dangerous features which render other savages, and those in regions not very remote from where the Esquimaux dwells, truly savage. In person they are of low stature, but stoutly and rather well made; the complexion is of an olive tint, the face broad and round, with dark, small, and piercing eyes; they possess excellent humour and temper, but their ignorance is gross in the extreme. They had no conception that there existed any country but their own, and such places as they had visited in their hunting excursions. The women differ little, either in appearance or dress, from the men; the same skin of the seal or deer suffices for each, and cut and fashioned in nearly the same manner. Their gestures were very significant, and when they received small pre-

sents, they expressed their satisfaction and delight by violently jumping into the air. One of the two principal natives, Tullooachiu, when he visited the ship, had had his leg amputated; it had been taken off below the knee in a clever manner, and he himself described the operation, as well as it could be gathered, to have been done in this manner. The upper part of the leg was bound with thongs, and the flesh stripped from the lower part with their rude knives; (which; as well as their spears, sledges, and other things, are made of whale and other fish bones, wood being entirely unknown amongst them;) "the bone was then inserted in a hole in the ice, and snapped asunder, the parts seared by some lighted moss, and nature did the rest." The British sailors, during the period of his visit, made him a wooden leg, with which he seemed evidently quite delighted.

The Esquimaux, during the period of Captain Ross's sojourn in the neighbourhood of the Victory, erected a village. The only materials they made use of in the construction of their rude temporary huts were snow and ice. The rapidity with which they erect them is quite equal to the extraordinary nature of the matter employed in their erection. They are built, furnished, and inhabited in the course of a very few hours. They are round, with an arched dome of very good formation; the window is formed of a fragment of ice, which admits sufficient light for their purposes. The entrance is by a long narrow passage in the snow; the bed is formed of an embankment of snow in the

interior, which they cover with skins. They cook their food, and the apparatus is as simple as can well be imagined, yet it satisfies all their wants. A hollowed stone, filled with whale blubber, serves both for cooking place and lamp, and the wicks are formed of moss; this gives out abundance of both light and heat for all their purposes. As may be supposed, from the primitive life they lead, they possess little or no property; their skins, their trifling cooking utensils, as just described, their spears and knives of whalebone, a sledge and dogs to convey it, comprise the whole property of the tribe, which does not much exceed a hundred souls of both sexes.

## APPENDIX TO THE AMERICAN EDITION.

### CAPTAIN BACK'S EXPEDITION.

THE following summary of Captain Back's expedition, it is believed will be found interesting.

In 1833 an association in England fitted out an expedition to proceed to the Arctic regions in search of Captain Ross and his companions, whose long absence had caused much painful anxiety. Captain Back, who had the benefit of experience in Arctic enterprises under Captain Franklin, volunteered his services, and was intrusted with the charge of the expedition, which consisted of two officers and about twenty men, part of whom were engaged in England, and part in Canada. All of them were inured to fatigue, and accustomed to the duties they had to perform.

Agreeably to the plan of this overland expedition, Captain Back proceeded from Liverpool to Montreal, by way of New-York, early in the spring of 1833. The route fixed upon was the ordinary one for the fur traders, viz. by the Ottawa, French River, the Great Lakes, Lake Winnipeg, &c., to Great Slave Lake, being a distance from Montreal of 2300 miles. The mode of travelling on the lakes was in a large

birch canoe, which at Fort William was changed for smaller ones adapted to river navigation. From Slave Lake Captain Back was instructed to proceed to the Great Fishing River, and after passing the winter in that quarter, to direct his course the following season for the mouth of the river in the Arctic Sea, which was believed to be less than 300 miles from the wreck of the Fury, at which place it was hoped that tidings of Captain Ross would be obtained.

In a letter from Captain Back, dated at Fort Reliance, east end of Great Slave Lake, Dec. 7, 1833,* he states that he had that season proceeded as far as latitude 63 deg. 41 min. N., and longitude 108 deg. 12 min. W., being only 109 miles from Bathurst Inlet. The party concluded their journey in September, by going into winter quarters at the place above named, in lat. 62 deg. 48 min. N., lon. 109 deg. 10 min. W. The winter house they erected they called Fort Reliance. Captain Back describes Great Slave Lake as equal in size to Lake Michigan.

After the return of Captain Ross to England, a messenger was despatched to Captain Back with the intelligence, which, it was hoped, would reach him by the way of the Hudson Bay Company's settlements, before he broke up his winter quarters. Fortunately these hopes were realized, and letters received in England from Captain Back, dated at Fort Reliance, April 29, and May 5, 1834, announce the receipt by him,

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* See page 173.

on the 25th April, of the pleasing intelligence of the safe return of Captain Ross. The despatches to Captain Back, after acquainting him with the safe arrival of Captain Ross and crew, and of the discoveries made by Captain and Commander Ross, direct him to proceed to Cape Turnagain, so named from being the extreme northern point reached by Captain Franklin; thence he is directed to proceed to the obelisk of stones erected by Commander Ross to mark the south-west limit of the neck of land which he partially explored. This obelisk is in lat. 69 deg. 37 min. N. and lon. 90 deg. 40 min. W., and is supposed to be distant only 150 miles from Cape Turnagain. It is believed that Captain Back will thus be able to complete the survey of the north-east coast of America, up to the southern point where Captain Ross's discoveries terminate.

Early in the present spring (1835,) Captain Back and his party are expected to set forward on their return to England.